



INSTITUTIONAL ANALYSIS OF THE FOREST SECTOR OF THE REPUBLIKA SRPSKA



A REPORT FOR USAID

Prepared by Fountain Forestry Inc and FRR Ltd

22nd 0th -February 2004

Contents

Glossary	3
1. INTRODUCTION.....	44
1.1. OUTPUTS.....	44
2. SECTOR BACKGROUND.....	55
3. METHODOLOGY.....	77
4. ANALYSIS AND PROBLEMS.....	88
4.1. OVER ARCHING ISSUES	88
4.2. VERTICAL INTEGRATION	88
4.2.1. Task background.....	88
4.2.2. Results.....	90
4.2.3. Conclusions.....	114
4.2.4. Problems and potential solutions	114
4.3. GOVERNMENT STRUCTURE FOR FOREST MANAGEMENT	124
4.3.1. Task background.....	124
4.3.2. Results.....	134
4.3.3. Conclusions.....	144
4.3.4. Problems and potential solutions	154
4.4. LEGAL FRAMEWORK FOR TIMBER SUPPLY / DEMAND BALANCE	154
4.4.1. Task background.....	164
4.4.2. Results.....	164
4.4.3. Conclusions.....	184
4.4.4. Problems and potential solutions	184
4.5. POLICY EFFECTIVENESS	194
4.5.1. Task background.....	194
4.5.2. Results.....	202
4.5.3. Conclusions.....	202
4.5.4. Problems and potential solutions	212
4.6. TIMBER PRICES, SALE AND DISTRIBUTION	212
4.6.1. Task background.....	212
4.6.2. Results.....	212
4.6.3. Conclusions.....	242
4.6.4. Problems and potential solutions	242
4.7. COMPANY STATUS, CERTIFICATION AND CONCESSIONS	262
4.7.1. Task background.....	262
4.7.2. Results.....	262
4.7.3. Conclusions.....	272
4.7.4. Problems and potential solutions	272
4.8. OTHER ISSUES.....	282
4.8.1. Finance.....	282
4.8.2. Privatisation.....	282
4.8.3. Private sector representation & coordination	303
4.8.4. Coordination with the FBiH	303
4.8.5. Coordination with other donor activities	303
4.8.6. Technical issues	313
5. RECOMMENDATIONS.....	333

5.1.	3333
Appendix 1 - Scope of Work for Forestry Expert	34
Appendix 2 – Constraints for this assignment	36
Appendix 3 – Sources of information	37
Appendix 4 – Contributors and people consulted	39
1. INTRODUCTION.....	
1.1. OUTPUTS.....	
2. SECTOR BACKGROUND.....	
3. METHODOLOGY.....	
4. ANALYSIS AND PROBLEMS.....	
4.1. OVER ARCHING ISSUES	
4.2. VERTICAL INTEGRATION	
4.2.1. Task background.....	
4.2.2. Results.....	
4.2.3. Conclusions	10
4.2.4. Problems and potential solutions	
4.3. GOVERNMENT STRUCTURE FOR FOREST MANAGEMENT	
4.3.1. Task background.....	
4.3.2. Results.....	
4.3.3. Conclusions	
4.3.4. Problems and potential solutions	
4.4. LEGAL FRAMEWORK FOR TIMBER SUPPLY / DEMAND BALANCE	16
4.4.1. Task background.....	
4.4.2. Results.....	
4.4.3. Conclusions	
4.4.4. Problems and potential solutions	
4.5. POLICY EFFECTIVENESS	
4.5.1. Task background.....	
4.5.2. Results.....	
4.5.3. Conclusions	24
4.5.4. Problems and potential solutions	
4.6. TIMBER PRICES, SALE AND DISTRIBUTION	
4.6.1. Task background.....	
4.6.2. Results.....	22
4.6.3. Conclusions	
4.6.4. Problems and potential solutions	25
4.7. COMPANY STATUS, CERTIFICATION AND CONCESSIONS	
4.7.1. Task background.....	
4.7.2. Results.....	
4.7.3. Conclusions	
4.7.4. Problems.....	28
4.8. OTHER ISSUES.....	
4.8.1. Finance.....	29
4.8.2. Privatisation.....	29
4.8.3. Private sector representation & coordination	
4.8.4. Coordination with the FBiH	31
4.8.5. Coordination with other donor activities	31
4.8.6. Technical issues	32
5. RECOMMENDATIONS.....	

5.1. NEXT STEPS	
5.2. RECOMMENDATIONS FOR THE RS GOVERNMENT	

Appendix 1 – Scope of Work for Forestry Expert

Appendix 2 – Constraints for this assignment

Appendix 3 – Sources of information

1. INTRODUCTION	4
2. SECTOR BACKGROUND	5
3. METHODOLOGY	7
4. ANALYSIS AND PROBLEMS	8
4.1. OVER ARCHING ISSUES	8
4.2. VERTICAL INTEGRATION	8
4.2.1. Task background	8
4.2.2. Results	9
4.2.3. Conclusions	10
4.2.4. Problems and potential solutions	11
4.3. GOVERNMENT STRUCTURE FOR FOREST MANAGEMENT	12
4.3.1. Task background	12
4.3.2. Results	13
4.3.3. Problems and potential solutions	15
4.4. LEGAL FRAMEWORK FOR TIMBER SUPPLY / DEMAND BALANCE	15
4.4.1. Task background	15
4.4.2. Results	16
4.4.3. Conclusions	17
4.4.4. Problems	17
4.5. POLICY EFFECTIVENESS	19
4.5.1. Results	19
4.5.2. Conclusions	20
4.5.3. Problems	20
4.6. TIMBER PRICES, SALE AND DISTRIBUTION	21
4.6.1. Task background	21
4.6.2. Results	21
4.6.3. Conclusions	22
4.6.4. Problems	23
4.7. COMPANY STATUS, CERTIFICATION AND CONCESSIONS	25
4.7.1. Task background	25
4.7.2. Results	25
4.7.3. Conclusions	26
4.7.4. Problems	26
4.8. OTHER ISSUES	27
4.8.1. Finance	27
4.8.2. Privatisation	28
4.8.3. Private sector	30
4.8.4. Coordination with the FBiH	30
4.8.5. Technical issues	31
5. RECOMMENDATIONS	32
5.1. NEXT STEPS	32
5.2. RECOMMENDATIONS FOR USAID	32

5.3. RECOMMENDATIONS FOR THE RS GOVERNMENT.....	33
Appendix 1 – Scope of Work for Forestry Expert.....	34
Appendix 2 – Constraints for this assignment.....	36
Appendix 3 – Sources of information.....	37
Appendix 4 – Political map of Bosnia i Herzegovina.....	39

Glossary

<u>Added value processing</u>	<u>Manufacture of products (such as doors, windows, counter tops) with a higher price per unit of timber and requiring more processing operations than sawn timber</u>
<u>Certification</u>	<u>Independent confirmation of the sustainability of forest management and that timber for products came from a sustainably managed forest</u>
<u>concessions</u>	<u>The right to use usually a large area of eg forest, under certain conditions, within defined contractual payments and terms, usually for a long period such as over 30 years</u>
<u>GIS</u>	<u>Geographic information system – software which combines 2 D mapping capability with powerful database capability. Now the standard software for forest management.</u>
<u>ha</u>	<u>Hectares – unit of land area. – 1 ha = 2.47 acres</u>
<u>Harvesting / logging</u>	<u>The process of cutting trees down and moving them to a place that a road-going truck can reach</u>
<u>Haulage</u>	<u>Trucking - in US terminology</u>
<u>Joinery</u>	<u>Wooden products fixed in buildings, such as doors, windows and staircases. Furniture is not joinery.</u>
<u>KM</u>	<u>Konvertible Marks – In February 2004, USD 1 = KM 1.55</u>
<u>km</u>	<u>Kilometres</u>
<u>logs</u>	<u>A tree or part of a tree after it has been cut down</u>
<u>m³</u>	<u>Cubic metres – the standard unit of measurement for both logs and sawn timber. 1 m³ weighs approx. 1 metric tonne or 1 US ton. In BiH, a large truck can carry approx. 25 to 30 m³</u>
<u>roundwood</u>	<u>A tree or part of a tree before it is sawn or split for use</u>
<u>sawmill</u>	<u>A factory where logs / roundwood is the raw material and sawn timber is the product</u>

File name

Revised report - 22 Feb, ~~Revised report – 19 Feb~~

1. INTRODUCTION

This report presents the results of an investigation of the forest sector of the Republika Srpska (RS). It concentrates on the institutional factors affecting sustainable forest management and a competitive forest products industry.

For the purposes of this assignment, “institutional” factors refers to the main policy, legislation and organisations relevant to the forest sector and the way that those impact on financing of forestry, on the private forest sector companies and on the development of sustainable forest management.

The investigation was initiated in response to two major concerns:

- Government's concern that the revenue arising from the forest (including wood products) sector was not as much as it should be
- Concern expressed by wood processing companies (clients of USAID development programs) that they could not obtain an adequate, reliable supply of suitable quality timber

The investigation aimed to understand the underlying institutional problems (including policy, legislative and organisational) and to make recommendations for potential solutions to the problems.

The investigation has found that, as in the forest sector of other countries, the problems are complex and multifaceted. However, there are many actions which can be taken which together will greatly improve the current situation. There is no “quick fix” to all the problems.

The forest sector in RS (and in the whole of BiH) represents an opportunity to support the continued development of a sector which can make a major contribution to the future economy and stability of RS, of BiH and of the region. The task for this investigation was to identify problems that might be addressed through additional project support and the report necessarily concentrates on these. There is undoubtedly much to be optimistic about: it is not the task of this report to present those more positive factors!

The report was prepared by the consultancy company Fountain Forestry Inc and their associate company FRR Ltd of the UK.

1.1. OUTPUTS

The “deliverables” of this assignment are:

a) a short (4 page) briefing paper which charts the underlying causes of the two main high level problems and which lists the actions which people in the sector have requested help with
~~The forest sector in RS (and in the whole of BiH) represents an opportunity to support the continued development of a sector which can make a major contribution to the future economy and stability of RS, of BiH and of the region. The task for this investigation was to identify problems that might be addressed through additional project support and the report necessarily concentrates on these. There is undoubtedly much to be optimistic about: it is not the task of this report to present those more positive factors!~~

b) an draft outline project plan, which lists the activities required, tasks, objectives addressed by each, and likely resources needed for and duration of each set of activities

c) this report, which explains the problems in detail and which supports a) and b)

2. SECTOR BACKGROUND

Within BiH as a whole, forest is estimated to cover some 45 to 54% of the land area and amount to some 2.3 to 2.7m ha. Of this total, approximately 80% is state owned and the balance – which is mainly smaller areas – is privately owned.

The variation in this data depends on the source and the definitions used. This highlights the fact that obtaining high quality, reliable data is difficult. Given the political background of the country, this is not surprising.

The last full inventory of forests in BiH was carried out in the 1960s. (It is common elsewhere to carry out a full inventory approximately every 10 years.) In addition to the expected changes since then, significant areas of forest have been affected by shrapnel and landmines during the war. Timber harvesting during the war period was not controlled and the extent of that harvesting is not known.

Road density in the forests of BiH is approximately 6 to 8 km per 1,000 ha, which is approx 30 to 50% of the European average for similar terrain. The effect of this is to concentrate timber harvesting in the areas which are accessible by road. This can lead to over-exploitation in some areas and under-harvesting in the inaccessible areas.

For all these reasons, most quantitative data regarding forest areas, the available resources of timber, annual increments and Annual Allowable Cut etc should be treated as provisional estimates, at best.

Owing to the factors mentioned above, not all the data necessary for a detailed breakdown of the forest sector in the RS is available. However, the data available at the time of the writing¹ includes:

- Land classified as state owned forest covers some 973,000 ha
- Of this total, 714,000 ha are stocked, the balance being land for replanting and permanently unplanted land².
- Total stocking of timber is estimated as 172.6 million cubic metres (m^3), of which 60.2m m^3 is coniferous and 112.4m m^3 is deciduous (broadleaved) species.
- Annual volume increment in RS forests has been estimated as 5.1m m^3
- Annual Allowable Cut (AAC) has been estimated as some 3.8m m^3

Management and administration of the state-owned forests is centralised in the hands of Srpske Sume, the state owned “Public Forestry Company / Enterprise”. The implementation of operations within these state-owned forests is currently delegated to some 42 separate “forest management units” (FMUs). FMUs are territorial branches of Srpska Sume and, in accounting terms, are profit centres. Two other “departments”, both cost centres in accounting terms, cover the “general directorate” (a headquarters function) and “research and planning”. The General Directorate provides HR, accounting and management control services. “Research and planning” is responsible for research, preparation of management plans and providing technical assistance to the FMUs with the preparation of harvesting plans, etc.

Srpske Sume also has some responsibilities for privately owned forests and the majority of timber from private forests is sold by Srpske Sume. Only Srpske Sume staff are allowed to prepare management plans for private forests.

Timber harvesting and transport is mostly carried out by separate contracting companies. Approximately 80% of the capacity of these companies has now been privatised.

The forest products industry (sawmilling and wood processing) is highly fragmented. The actual number of sawmills (mills whose raw material is round logs, rather than already sawn timber) is not

¹ Taken from “Srpske Sume 1993 to 2002”

² Srpske Sume 2002

known with certainty, but appears to be between 900 and 1,000 ~~and 1,500~~. A requirement for sawmills to be registered and licensed to operate as sawmills is widely ignored, as only some 180 sawmills in the RS are licensed, with another 1200 in the process of obtaining a licence³.

The capacity of the sawmilling industry in the RS is not known with certainty. The capacity is said to be approximately 2.5 to 3.0 times the annual (sustainable) volume of sawlogs available.

There seems to be a consensus that the extent of illegal logging increased dramatically during the war years and that large numbers of small scale sawmills have started up in recent years. It has not been possible so far to find detailed data on these two factors. The extent of illegal logging has more recently (within the last 3 years) been estimated as “no longer significant” to “more than 40% of total harvest in some areas”. The probable reality is that no-one really knows. Making a better estimate of this is a priority for effective and sustainable management of the forests.

The forestry legislation of the RS requires that “Forests ... shall be maintained, regenerated and used in such a way that their value and ... useful functions are preserved *and increased*” (Consultant’s italics, for emphasis.)⁴ At a minimum, this requires a standard of management now commonly referred to as “sustainable forest management” (SFM). Definitions and interpretations of SFM vary and it can be argued that the RS law requires a standard higher than that generally understood by SFM.

However, the fundamental requirements for achieving SFM include two of particular importance in this context:

- **Up to date, detailed inventory data on forest resources (which would include existing resource of timber, wildlife, biodiversity, social benefits obtained, etc) and the spatial distribution of those resources**
- **Effective monitoring and regulation of site management, exploitation and use of those same resources**

Neither of these requirements is adequately satisfied within the RS at present.

The sustainable development of the forest sector has to be seen within the overall context of effective implementation of the rule of law, the effectiveness and impartiality of the police and the judiciary and the effective application of civil and contractual law, with timely, cost effective redress available. It is beyond the scope of this report to investigate those factors.

Looking ahead to the activity planning which is to be undertaken, it is important that any possible activity in the sector which USAID may undertake is effectively co-ordinated with activities – both current and planned – of other development agencies. A new, World Bank funded, Forest Development and Conservation Project started in October 2003 and the consultants met with the World Bank and with the PIU, to update the information on the scope and coverage of that project. Other donors with an interest in the forest sector, with whom dialogue should be maintained, include the EU, SIDA, DFID and GTZ.

³ Ministry of Energy, Economy and Development – research for this report February 2004

⁴ Law on Forests 1994

3. METHODOLOGY

The research and investigation for this report was undertaken by the consultants in three main stages, as follows:

1. December 2003 - A desk review of the available information, supplemented by additional data gathering undertaken in BiH. Interviews were conducted at this stage, by Bosnian staff, with seven of the larger wood processing companies, with a senior manager of Srpske Sume and with the Chamber of Commerce. A preliminary institutional analysis was prepared.
2. February 2nd to 13th, 2004 - Field visits to FMUs Gradiska, Dubica~~Podgraci~~, Rogatica and Sokolac and meetings with Ministry of Economy, Energy and Development (MEED), Ministry of Agriculture, Forestry and Water Management (MAFWM), Srpske Sume, with trade associations and with private forestry harvesting and wood processing companies.
3. February 14th to 23rd, 2004 – Meetings with international development organisations ~~financing institutions~~ in Sarajevo, team discussions and ~~and~~ writing up

A full list of sources used and people consulted and can be found in Appendix 3 – Sources of information.

It may be helpful to clarify terminology used. The consultants have used the expression “wood processing” industry or “wood processing companies” to include any company which uses wood / timber – in any form - as its main raw material. This could include sawmills, pulp mills, board products mills, joinery factories (whose raw material is sawn timber), veneer mills, etc.

In many places in this report, wood processing companies are being considered in the context of their impact on timber harvesting and sustainable forest management. In those cases, the companies of relevance are those whose raw material is roundwood. To include, for example, a joinery factory could result in double counting of its timber demand.

4. ANALYSIS AND PROBLEMS

This section covers in turn each of the six main tasks set out in the Scope of Work. For each task: the background is outlined where necessary; the results of this assessment are presented; conclusions are drawn; and the main problems are identified and potential actions to solve the problems are outlined.

4.1. OVER ARCHING ISSUES

Before considering the main tasks of this assignment, attention is drawn to two main issues which are extremely important for all the other more detailed problems and potential solutions which follow. Those two issues are **information and co-ordination**. These must be kept in mind at all times when making further deliberations about the forest and wood processing sector.

Information

- There is a lack of readily available, good quality data about the sector, such as forest inventory. Processes for gathering and collating data have broken down (as a result of the collapse of central planning and the war)- and have not yet been replaced.
- Some of the data that has been obtained may be the best available, but should still be regarded as provisional and indicative.
- Effective policy making and implementation, by both Government and development agencies, is unlikely to occur in the absence of better data.
- Gathering, collating, presenting and disseminating better data is an important priority.

Coordination

- It is essential that the development of the forest sector (including wood processing) moves forward in close consultation with that in the FBiH
- Close co-ordination with sector developments being implemented by other development agencies such as the World Bank and GTZ is essential, so that activities are complementary, do not duplicate and are not contradictory.
- Closer coordination within the forest sector would be beneficial for all: this requires a forum for dialogue and action amongst companies, between companies in the private sector and government agencies and amongst government agencies with an interest in the sector.

4.2. VERTICAL INTEGRATION

Task 1 - How to vertically integrate the supply chains efficiently with the wood processing industry?

4.2.1. TASK BACKGROUND

Anecdotal evidence and the experience of the USAID “Wood Products Cluster Competitiveness Initiative” (WPCCI) suggest that some wood using companies have difficulty obtaining the amounts and quality of timber they want, that allocation of timber is not economically optimum and that, as a result, the forest products sector is not contributing as fully as it could to sustainable economic development⁵. In addition, as a result of the change towards a market economy, wood using and wood producing industries are not sufficiently closely linked to ensure most effective use of timber, ready availability and the minimisation of waste. This has resulted from the operational disruption

⁵ Work undertaken for the Bosnian Forest Project (1997 to 2002) reported wood processing companies having the same complaints.

caused by the economic transition and from the fact that, during the war, control of timber resources may have declined to the point that low cost timber leads to inefficient use and to waste.

The level of integration of any supply chain has to be practical for the state of the finances, operations and management of the organisations involved. However, to be efficient, the requirements for integration of the supply chain in forestry and the wood using industries include:

- An adequate supply of round timber (logs) of the qualities sought by the users
- An agreed, common set of timber quality standards for the raw material (round timber, or logs) to be used by all parties
- For the standards to be determined by factors which allow optimum efficiency in use of the timber, consistent with recognising the natural form of the trees and timber
- For those parties to consistently and reliably apply the agreed standards

Agreement on: timing and speed of the sequence of operations to be carried out; the standards of workmanship to be applied during the felling, extraction and transport operations; on the commercial terms regarding payment, credit limits, etc; and on information to be shared

Agreement on the standards of workmanship to be applied during the felling, extraction and transport operations

Agreement on the commercial terms regarding payment, credit limits, etc

• Agreement on information to be shared

- Contractual confirmation of the standards and terms agreed
- Effective, low cost and quick availability of redress if the contractual obligation are not satisfied
- An efficient timber harvesting and transport service

In this case, the standards adopted have to recognise that the majority of the timber available is hardwood (broadleaved species) which is much less homogenous than softwood.

4.2.2. RESULTS

Primary research for this report also found evidence supporting the fact that better integration of supplier and user would be possible. The majority of the wood processing companies interviewed reported problems with timber purchase. Companies report that:

- They frequently do not get the volume of timber that Srpske Sume is contracted to supply
- quality standards are not adhered to
- quality of timber within one standard grade varies more than they think it should
- the quality of timber within a grade is declining
- private companies have to pay more quickly than state owned companies
- too much timber is being sold to inefficient sawmills (including illegal ones) who only produce a low value product but prevent others adding more value

In a free market situation, some of these complaints have more validity than others.

The biggest single issue regarding adequate, reliable supply of round timber is that there is gross overcapacity in the sawmilling industry. It is estimated that the demand (single shift processing capacity) of the sawmills in the RS is approximately 2.5 to 3.0 times the available supply of sawlogs⁶.

The underlying causes of this over-capacity include:

⁶ Srpske Sume staff, MEED staff, MAFWM staff and direct observation

- Until early 2004, the price for all sawlogs sold was set by Government, at levels which are significantly lower than prices in the region and much lower than prices in Western Europe. However, by May 2004, a directive by the Board of Srpske Sume requires all FMUs to sell 50% of timber by auctions. Some FMUs have already started selling by auction.
- Low prices (and thus higher profits from sawmilling) have attracted many new entrants into sawmilling. Although in theory a licence is required to operate a sawmill (and thus licensing should be a means to regulate the demand of sawmills), in practice it appears that neither this regulation nor other regulations relevant to sawmills (on employment, tax, construction, etc) are adequately enforced.
- Many of the state owned sawmills have very substantial old debts to Srpske Sume (totalling some 35m KM without interest) are inefficient, loss-making and either cannot or will not pay promptly for their sawlogs. Thus, in order to maintain their cash flow, Srpske Sume are under pressure to maintain supplies to the unlicensed sawmills. There is also local political pressure to maintain supplies to the unlicensed mills to avoid social problems.

The whole wider issue of marketing of timber was assessed at some length by consultants for the Bosnia Forestry Project. The report “Wood marketing and pricing”⁷ sets out the issues well. The report supports the idea that timber resources are not being used as efficiently as possible and identified some of the reasons for that. Key points from the report include:

- The lack of a market orientation to customers in the forest management organisations
- The fact that price is not used to drive efficient utilisation

Another requirement for a reliable flow of raw material is a well organised, efficient and cost-effective harvesting and transport services. Harvesting and transport companies (commonly referred to as “forest exploitation companies”) have recently been privatised some two to three years ago, after separation from Srpske Sume. From observation, it is clear that efficiency, equipment, training and financial position of many of these companies is not adequate. The cost of harvesting is approximately the same as in Northern Europe, in spite of the fact that average earnings are only c 20% of those in Northern Europe⁸.

In theory contracts for harvesting and transport are awarded by tender. However, there appear to be too few companies for effective competition. The market for such services is not yet working in the way which will reduce costs and rewards the most efficient.

The continuous cover silviculture usually practiced in RS requires a higher standard of harvesting operation than clear felling⁹. In many countries, this tends to make forest management organisations want to control directly the felling and extraction operations. This in turn makes it much less likely that wood processing companies can integrate the felling, extraction, cross cutting and transport operations so as to suit their production requirements. However, harvesting is now contracted out by Srpske Sume to private companies. So, in principle, it will be possible to conduct standing sales, in which customers harvest their own timber, to their own delivery schedule and standards.

There is a proposal to form an “Association of Forest Exploitation Companies” but this organisation is not yet in operation.

Substantial support has been provided to wood processing companies, in particular through the CGBIP / Cluster Competitiveness Initiative. However, the consultants are not aware of any high level assessment of the efficiency of wood using industries, at the level of the whole sector. No data on for example factors such as average recovery, value added per employee, profitability, return on capital, etc has been identified. Thus it may be that significant improvements in efficiency and profitability can be achieved within the wood producing and wood using companies separately, before tackling the institutionally harder tasks of vertical integration of supply chains.

⁷ [Draft Report “Wood marketing and pricing” by R. Scharpenberg, July 2002](#)

⁸ Consultant’s field observations

⁹ The Law on Forests of 1994 has a presumption against clear felling.

Other more minor immediate causes include: lack of training; insufficient monitoring of the application of grading rules; irregular production schedules in both selling and buying operations, caused by short term financial and operational crises; etc.

4.2.3. CONCLUSIONS

Some of the key factors which are affecting supply chain integration and efficient use of the raw materials include:

- **There is gross over-capacity in the sawmilling sector and demand is 2.5 to 3.0 times the available supply. Overcapacity greatly contributes to illegal logging as companies adopt whatever practices are required to obtain sawlog supplies**
- There ~~have been~~ ~~appear to be~~ many new entrants to the sawmilling sector. There is a suggestion that many have no background or training in the industry and are motivated primarily by short term easy profits rather than a long term business. They are probably inherently inefficient and their continued operation causes further inefficiency.
- Srpske Sume is a monopoly supplier of round timber, controlling over 80% of the market. Wood processing companies have no alternative but to buy from Srpske Sume.
- The financial targets for Srpske Sume – and thus the incentives to be a customer oriented supplier - are not yet clear.
- Both Srpske Sume (in its internal reorganisation) and the sawmilling sector (in its extended privatisation processes) are undergoing extensive change, which affects morale, performance and management of day to day operations.
- Price is not yet used as fully as possible to ensure that timber is allocated in a way that is economically efficient, that is to the companies that can add most value while operating legally. However, the recently announced change to auctioning timber should, if implemented well, correct that situation. (See below.)
- Whilst in theory there could be financial penalties for contractual non-performance, it is not yet clear what redress wood processing companies do effectively have if Srpske Sume does not perform according to its contract.
- It appears that Srpske Sume may be encouraged to supply new entrants by their ability to pay promptly, as the longer established (state-owned) companies cannot or will not pay promptly.
- The market for harvesting and transport services is not yet operating efficiently. Many such companies are poorly equipped and have inadequately trained management and workers.
- The lack of a market for low grade timber is encouraging attempts to sell it for other purposes for which it may not be suitable, putting pressure on other grades and adversely affecting profitability.

Other more minor factors include: lack of training; insufficient monitoring of the application of grading rules; irregular production schedules in both selling and buying operations, caused by short term financial and operational crises; etc. Whilst the “trade association” DRVO BiH has started doing valuable work representing at least 870 member wood using companies in the two entities, it is a relatively new organisation. The trade association for harvesting and transport companies is not yet in operation

4.2.4. PROBLEMS AND POTENTIAL SOLUTIONS

The main problems which need to be addressed – and the potential solutions to them - include:

- There is major overcapacity in the sawmilling industry.
 - Impose a moratorium on new sawmill licences until an accurate assessment of capacity is known.

- Implement data gathering and analysis to update and make available good data on demand / capacity of round wood using industry.
- Ensure that installed capacity does not exceed sustainable yield by more than margin needed for competition, by industry restructuring if needed
- In spite of the country's ongoing transition to a market economy, until recently price has not been used to ensure optimum allocation of timber resources, to the companies which are most efficient at adding value. Sales have been at Government set prices, rather than tender or auction. Auctioning has started, but best practice has to be spread through Srpske Sume.
 - Strengthen the capacity to implement robust, transparent auction sales, to increase share of harvest sold by auction / tender and to link contract sales to market prices
- Regulations regarding both forestry and sawmilling are not adequately enforced
 - Achieve stronger enforcement of the law on sawmills, sawmilling and forestry
 - Strengthen enforcement, education and information dissemination
- Internal restructuring and reorganisation of Srpske Sume has started but not yet finished. There will be a consequential need for consolidation of the changes to reinforce the staff approach required. An essential part of this consolidation will be a structure that allows effective penalisation of the supplier by the user when contractual terms are not met.
 - Check plans for institutional support to Srpske Sume in current WB Project.
 - Undertake more in depth SWOT analysis of Srpske Sume, to identify need for development.
 - Provide additional complementary organisational development support to speed up completion of changes.
 - Provide longer term support to further strengthen planning, management, HR practices and training, reporting, etc and to consolidate changes to structure.
- There is no trade association in operation for the forestry sector and DRVO BiH, the industry body for wood using companies, has only recently started to represent the sawmilling / wood processing sector. It has not yet had the opportunity to give attention to collective action to address some of these problems.
 - Liaise with CIPE to plan, implement, support and consolidate start up of trade / professional associations (new) organisation / s.
 - Link to ongoing policy formulation process and to FBiH structures.
- There is a lack of markets for small roundwood
 - Support research into and development of new markets for small roundwood, for veneer logs and for other innovative services

4.3. GOVERNMENT STRUCTURE FOR FOREST MANAGEMENT

Task 2 - A review of the forest management government structure, detailing its weaknesses and recommending activities that would lead to its improvement, with an assessment of what type of structure is more efficient and effective in the upstream side of the wood processing industry?

4.3.1. TASK BACKGROUND

A detailed evaluation of institutional arrangements for forestry was made under the last completed World Bank-funded Bosnian Forestry Project Forestry. The recommendations made under that assignment are broadly sound.

As with other factors such as legislation, the overall effectiveness of the institutional arrangements for forestry is a combination of the quality and suitability of the planned institutional structure, the extent and way in which the structure has been implemented, the quality of the implementation and reinforcement of the structure, the frequency of change of structures and the effectiveness of the steps taken to change behaviour as well as structures. Frequent change is undesirable. Better results may be achieved by strengthening the implementation of an existing, less than perfect structure, than by imposing yet more structural change.

~~Two key background documents essential for this Task were not available during the execution of this assignment. These are:~~

~~? the “Statutes of Public Enterprise of RS Srpske Sumo” (immediately available only in Bosnian: time did not allow translation of this 70 page document)~~

~~? an evaluation (carried out for the World Bank Bosnian Forestry Project ended March 2003) of some State Forest Enterprises, with regard to their financial capacity~~

~~A detailed evaluation of institutional arrangements for forestry was made under the last completed World Bank funded Bosnian Forestry Project Forestry. The recommendations made under that assignment are broadly sound.~~

~~As with other factors such as legislation, the overall effectiveness of the institutional arrangements for forestry is a combination of the quality and suitability of the planned institutional structure, the extent and way in which the structure has been implemented, the quality of the implementation and reinforcement of the structure, the frequency of change of structures and the effectiveness of the steps taken to change behaviour as well as structures. Frequent change is undesirable. Better results may be achieved by strengthening the implementation of an existing, less than perfect structure, than by imposing yet more structural change.~~

An overview of the main government structures for forestry is provided in the results section below.

4.3.2. RESULTS

The governmental structure for management and administration of forestry within the RS consists of the following four organisations:

- The Government of the RS – which appoints the Board of Srpske Sumo and has to give its consent to its statutes and certain other decisions
- The Ministry of Agriculture, Forestry & Water Management (MAFWM) – which is the line Ministry responsible for forestry
- Srpske Sumo – the Public Forest Enterprise, responsible for the management and administration of the state owned forests (and also for some aspects of private forestry), including its Board of Directors and its Supervisory Boards
- The Forestry Inspection Service – institutionally part of the MAFWM and which reports directly to the Secretariat of the Government

The line Ministry should play a crucial role in determining and implementing the policies, legislation and action plan for the sector. This needs a high calibre, well resourced group, with a keen awareness of the way that such Ministries work in other countries. The forestry section of the **MAFWM** has a very small staff (of five) and is based in Bijeljina. It appears that there would be benefit in increasing the capacity and strength of the MAFWM forestry department.

International experience indicates that tThere is substantial scope for improvement in the coordination between MAFWM and the other Ministries which impact on – or are impacted by – the forest sector. In particular, there appears to be potential benefit in greater coordination with and involvement of Treasury / Ministry of Finance, the tax, social security and tourism authorities, the Ministry of Industry and Technology and the Ministry of Economy, Energy and Development.

Srpske Sumo is a company, wholly owned by the Government of the RS. This model has been used in a number of other countries. The main alternatives to this status include: a Government Ministry; a Government department, subsidiary to a Ministry; an “agency” – a status between a

government department and a company; and a privately owned company. If the type of status of the organisation is to be reviewed, it would need to be the subject of an in depth investigation which considers all the legal, political, constitutional aspects as well as the financial and efficiency criteria. This is beyond the scope of this investigation.

The advantages of a state owned company for this purpose include: the scope for clearer financial accounting and managerial accountability; more freedom of operation than Government departments; retains government control of a publicly owned asset; potentially more suitable for a market economy than government department or Ministry; potential for balancing the professional and commercial pressures.

The disadvantages include: less obviously a public good service; retains government control; less freedom of operation than a privately owned company; more freedom of operation, which can be abused; probably less cost efficient than a private company.

For deeper understanding of Srpske Sume, more information is required on the financial targets and performance, the levels of service (to Government and to other stakeholders) required, the means of assessing the performance – other than financial, and the accountability to Government.

Management of forests within a particular area is delegated to **Forest Management Units** (FMUs), each of which covers a specific Forest Management Area. In accounting terms, FMUs are profit centres. Srpske Sume also has two cost centres, the General Directorate (an HQ, providing shared HR, finance and management functions and a secretariat for the Board) and a “research and planning “ department, responsible for preparation of management plans and provision of technical advice to the FMUs.

Srpske Sume has undergone and continues to undergo major structural change. A recap of those changes helps to understand the current situation. Prior to the war, the territory now known as BiH was divided for forest management purposes into approximately 45 FMUs. During the war, 22 of those FMUs became part of the new RS. After the war, the number of FMUs was increased to 42, to align the boundaries of the FMUs with municipal boundaries. This resulted in FMU boundaries which do not recognise natural boundaries. This creates major anomalies and obstacles to efficient management. At present, the number of FMUs also means that there are too many reports to each of the two Assistant General Managers.

Consideration is currently being given to a ~~A proposal has recently been made to~~ reduction in e the number of FMUs to approximately 25, by reverting to previous natural watershed boundaries. This change is in line with best practice in its use of watershed / landscape level features and is, in principle, a desirable change. The proposal will also have the effect of reducing the number of administrative and managerial staff needed, which the proposed introduction of the Forest Management Information System should allow and which should improve overall efficiency. Thus whilst the amount and frequency of change is regrettable, the structure of Srpske Sume envisaged for the near future will be more suitable and should be more efficient than the current structure. The current World Bank Forestry Development and Conservation Project plans to provide technical assistance and training support to the restructuring of Srpske Sume. Progress with both the restructuring proposal and the support requires further investigation.

There are likely to be a number of aspects of internal management policies and practices which are having a major impact on the overall effectiveness of the organisation. As with other organisations in BiH, staff rewards, motivation, monitoring, training and professional support will be crucial issues. It must be kept in mind though that changes in terms of service will in themselves not be sufficient to affect performance if there is not effective demand by the organisation's customers for them to perform effectively. At the moment the inability of the timber industry to effectively hold Srpske Sume to account is a case in point. Improved terms of service for Srpske Sume staff would not be sufficient to improve service without additional reforms.

The **Forestry Inspection Service** (FIS) is institutionally part of MAFWM but now reports direct to the Secretariat of the Government. FIS is responsible for making sure that forestry legislation is implemented correctly and fully, including for making sure that Srpske Sume is discharging its responsibilities correctly, including controlling illegal logging. There are 11 professional staff, including the Chief Inspector and two inspectors who specialise in hunting activities. This leaves

effectively 8 inspectors to cover the whole of the RS. This is not enough. FIS's own plans anticipate them having 15 inspectors (budget permitting) and they agree that, given the current state of the sector and transition period, 20 to 25 inspectors is a more realistic number.

However, number of inspectors is only one requirement. It is equally important that they are well selected, trained, motivated, organised and equipped and that their independence from Srpske Sumo and from local vested interests is maintained.

4.3.3. CONCLUSIONS

From our assessment of the information available so far, it appears that the roles of Government and MAFWM are appropriate and not out of line with those found in many other countries. There is scope for some clarification of parts of these roles, which would need further amendments to legislation.

The institutional arrangements for forestry in the RS were assessed, analysed and discussed in great detail, over a period of some 6 months, under the ~~auspices of the EU-funded component of the~~ ^{**}Bosnia Forestry Project. This work is written up in a series of reports¹⁰ which the author of this report has reviewed. In summary, the consultants for the ~~EU-funded earlier~~ study put forward three potentially suitable models for the institutional structures for forestry, apparently without a specific recommendation. The models quite similar and, in the view of the author of this report, any of the three can be appropriate for the RS. A team of RS specialists responded to the proposals, recommending the adoption of one, with some modifications. The institutional model in existence now – as described above - is broadly in line with that recommended, although some significant details are different.

However, international best practice is that the institutional structures should be designed to be most suitable for the implementation of the long term policy for the sector. As there is currently no long term policy, this crucial factor has not yet been taken into account.

Therefore, the most suitable approach regarding institutions in the RS appears to be, firstly to strengthen the development of the institutions where needed, within the currently existing institutional model. Then, once a long term policy for the sector has been developed, the institutional structures and arrangements should be re-assessed, to determine their suitability for implementation of the new policy. The reassessment will then inform the review / revision of the sector legislation, which will proceed in stages iteratively and in parallel with the re-assessment of the institutions.

As the RS prepares for its long term political aspirations, the transition from a rather closed confidential style of Government to an open, transparent society, in which citizens have a right to all but the most sensitive security information, will be an important part of improving the performance of governmental structures. Independent monitoring, effective collection, collation and availability of data and public accountability of government staff will all play their part and have a potential role in the forest sector.

4.3.4. PROBLEMS AND POTENTIAL SOLUTIONS

The main issues regarding the government structures for forest management which it is appropriate to address at this time – and the potential actions to address the issues – are as shown below. It should be noted that the majority of these issues and potential solutions are in line with the recommendations of the RS specialists prepared in 2001.

- The MAFWM is under resourced for its tasks as the lead Ministry for the sector.
 - Strengthen the capacity of the MAFWM to develop policy, legislation and action plans
- Coordination of the various Ministries which have an impact on – or are impacted by – the forest sector is not yet good enough.

¹⁰ "Forest legislation, institutional development and policy study: Reports of sub-studies", Frank Ferlin, January 2001.

- Strengthen the capability of MAFWM to coordinate the sector and support the development of a new, more inclusive, coordination forum and process
- Srpske Sume has undergone frequent, major change. The current structure of Srpske Sume uses FMU boundaries which create management difficulties and result in inefficiency.
 - Liaise with the WB-PIU to assess the potential advantage of additional support to the restructuring and further organisational development of Srpske Sume.

The Forest Inspection Service is under resourced for its role.

- Assess, strengthen the capacity and provide resources for the FIS and its ability to be an independent arbiter for the sector.

Some clarification of specific governmental responsibilities and roles is needed, in the next round of legislative changes.

- Define the further clarification of legislation needed regarding governmental roles and responsibilities and include in next round of legislative changes.

4.4. LEGAL FRAMEWORK FOR TIMBER SUPPLY / DEMAND BALANCE

Task 3 - What legal framework may be necessary in order to have a sustainable natural forest while ensuring adequate supply of inputs into the wood processing firms?

4.4.1. TASK BACKGROUND

As already stated, the forestry legislation requires that the forests of the RS are managed “sustainably” and this is also a requirement of various international obligations which the RS either already has, or plans to take on in the medium term. With specific regard to the timber resources of forests, this legal requirement immediately creates the concept of a “cap”: a maximum amount of timber which can be removed in a given amount of time. That amount may or may not be enough to supply the wood using industry that has evolved.

In the RS, the wood using industries have expanded rapidly, with many new entrants in recent years. The industry has expanded to an installed capacity which is beyond the sustainable level of harvest from the forests. That capacity is estimated as 2.5 to 3.0 times the sustainable supply of sawlogs. **Unless there is evidence that any excess timber requirement will be available as imports, it can not be assumed that it will be possible to continue to supply the capacity of all “...the (currently existing) wood processing firms”.** Given the supply / demand balance for timber in the surrounding countries, it seems unlikely that a significant volume of timber can be imported in a way which is both legal and financially viable for the wood using industries.

The implications of this are ~~then~~ that:

- it is essential to be able to define with accuracy and detail: a) the sustainable yield of the forests – including the location of that yield; and b) the installed capacity and current demand of the wood using industry
- a comparison of a) and b) will show whether or not supply from sustainably managed forests is adequate for the current capacity of the wood processing firms
- the amount by which potential demand of the industry is greater than the sustainable supply can then be defined
- in which case, a reduction in the capacity of the industry will be necessary, by a planned restructuring programme

Thus, at present, the legislation has to allow and support this analysis, keeping in mind the overall requirement to manage the forests sustainably.

Earlier research on legislation in BiH, in 2000, drew attention to apparent over cutting, in response to either formal or informal pressure to maintain volumes felled and low costs.

The current absence of good quality data about either the sustainable yield of the forests (because of no recent inventory) or about the capacity of the wood using industry (because registration and licence requirements are not being enforced) suggests that a precautionary approach should be adopted.

4.4.2. RESULTS

There are two main aspects to the effectiveness of a legal framework:

- the actual content and clarity of the legislation, including whether or not the legislation makes adequate provision (in the form of allocating responsibility, authority and resources) for implementation
- implementation itself – are the responsibilities being discharged, or are they not adequately resourced, being deliberately undermined, or simply being ignored?

In a sector such as forestry, where control of a valuable resource is at stake, it is necessary to look closely at both aspects.

Forestry legislation was the subject of a very detailed and comprehensive analysis by Frank Ferlin and colleagues in 2000, within the same EU-funded study referred to earlier regarding the forestry institutions. The then current legislation was the Law on Forests, Number 01-1072/94 of 8th June 1994. Recommendations for changes were made, to bring the law into line with EU norms for forestry, but the changes did not extent to making the law compatible with EU accession in wider aspects. Attention was drawn then to the fact that the bigger problem at that time was enforcement of the law, not the detail of the law.

A subsequent set of “Changes and amendments to the Law on Forests” was gazetted on 13th August 2002. These changes incorporated some but not all of the changes recommended by Ferlin and colleagues in 2000.

A quick review of the modified law has been undertaken by the author of this report. The legislation: requires forests to be managed sustainably; requires the preparation of a management plan; requires operations to be implemented in accordance with the management plan; makes provision for the control of operations including felling and removal of timber, including imposition of penalties. It also reserves a greater than usual number of decisions to Government and / or to the National Assembly

The legislation does not: require regular inventory; require management plans to be based on the most recent inventory; is not wholly clear on the funding of the different organisations, nor on their financial regime; does not provide for independent oversight of Srpske Sume; is not clear on the resources required for and allocated to the Forestry Inspection Service.

With regard to enforcement, substantial fieldwork is required to comment on this in detail, for which there was no opportunity during this assignment. Data provided appears to quantify for 2002 the extent of illegal felling (at 15,000 m³) and the number of charges raised. The origin and reliability of the numbers is not known. More importantly, it is reported that only 10% of the charges raised were resolved by the courts.

The author’s own observations during the field work for this report included several definite example of illegal removal of timber. Based on professional judgement, there also appeared to have been significant over-cutting in places, but this cannot be confirmed without detailed on-site sampling and measurement, which was outside the scope of this assignment.

As mentioned, actual Enforcement of the law is at least as important as the detail of the law. C-and-compliance with forest law is a challenge in many countries. As described elsewhere in this report, it is widely believed that sawmilling capacity is 2.5 to 3.0 times the sustainable supply of sawlogs. We can say with confidence therefore that many sawmills are operating outside the law, either because they are not licensed or in the way they obtain their timber supplies. The latter activity may require the involvement of some Srpske Sume staff.

The Law on Forests is not clear on what measures are open to the Forest Inspection Service, other than bringing a charge which has to go through the overloaded courts. A review of other legislation is needed to see if Inspectors have the power to close down illegal mills, confiscate illegally obtained timber, etc.

Four “pillars” for achieving legal compliance in logging are commonly recognised. These are:

- Enabling environment for compliance – the structures, systems, rewards etc in Government / Srpske Sume; impartial and adequately resourced police and judiciary; independent media; empowered NGOs; anti-corruption measures in place; register of personal assets; etc
- Education – of industry, government staff, customers for timber, NGOs, the media, the public etc, to make sure that each person affected knows their responsibilities and obligations to comply with and apply the law – and that this information is in the public domain and readily available;
- Information – collect and publicise accurate, reliable data; require regular wealth disclosure by relevant government officials; increase transparency of sales, company results, appointments, etc;
- Enforcement – requires: appropriate staff; clear responsibility; adequate resources; suitable, high level training; professional support; effective, impartial, robust and quick police, court and judiciary systems; determination; monitoring and long term application.

An assessment of these four “pillars” is not part of this assignment. Further action is needed and proposed.

Some other aspects of regulation of the forest sector could be addressed through change to the legislation. At present, these do not appear under consideration but as part of a wider review of the legislation, it would be valuable to consider potential changes to:

- the not yet fully effective use of pricing
- the ability to ensure effective oversight and to hold Srpske Sume to account.
- the boundaries between State and Private Sector activity, which would be included in a more detailed assessment of Srpske Sume.

4.4.3. CONCLUSIONS

Assuming that the English translation provided is accurate, the current legislation could provide the basis for sustainable forest management. However, there is still scope for substantial improvement to the comprehensiveness, clarity and enforceability of the legislation. A more detailed assessment of the legislation, making a direct comparison with minimum requirements for effectiveness is needed, with substantial opportunity for reference and cross checking with a RS legal specialist is needed. However, changes to the legislation should be comprehensive and as infrequent as possible. Thus a combined set of legislative changes should be collected and developed, to take account of policy, enforcement, EU accession, etc and then implemented in perhaps 2006 / 07.

The more pressing problem appears to be enforcement of legislation. There is significant evidence to suggest that the forestry legislation is not being enforced as well as it could.

–The underlying reasons for that require some further investigation. It has often been found that quality of enforcement is more important for achieving sustainable management of forests than the detailed quality of the legislation.

A more comprehensive and strategic approach to firstly, assessing the current status of measures and activities needed to achieve legal compliance, and secondly to improving legal compliance appears to be needed. This will be an essential requirement if RS forests are to be certified as sustainably managed in the future.

The installed capacity of the roundwood using industry is substantially greater than the sustainable supply of timber. More effective licensing and regulation is needed.

Until all these areas are improved, it is unlikely that: a) the capacity of the wood processing industry will be appropriate for the supply of round timber; and b) the wood processing industry will receive a reliable, adequate supply of suitable quality round logs.

4.4.4. PROBLEMS AND POTENTIAL SOLUTIONS

The main problems apparent so far and potential solutions to them are as follows:

- Inventory data is out of date and the sustainable yield of timber, including its timing and spatial distribution is not known.
 - Liaise with WB project and GTZ to understand their plans for support to inventory.
 - Identify plans, IT, resources, coordination etc still required.
 - Provide complementary support to process, to speed up and improve quality of process, resulting data and access to data.
- The installed capacity of the wood using industry is not known.
 - Consider moratorium on new licenses for sawmilling
 - Plan, implement and support a census and evaluation of roundwood using companies, including support from bona fide companies.
 - Collate and publicise data.
 - Review licensing and size of industry in light of census results.
 - Instigate industry restructuring if needed.
- Enforcement of the legislation is at best patchy and a more strategic approach to achieving legal compliance is required.
 - Assess enabling environment factors, under institutional development activities covered elsewhere.
 - Plan, develop a comprehensive, strategic program to address all four “pillars” for legal compliance.
 - Include strategy for achieving IVLT and certification.
 - Implement and support programme.
 - Monitor results.

~~? A more strategic approach to achieving legal compliance is required.~~

- Forestry legislation requires to be clearer and more effective on inventory, implementation of legislation, enforcement of legislation and independent oversight.

- Support and broaden current process for development of long term policy.
- Assess legislative requirements for IVLT and certification.
- After completion of policy, undertake detailed review of legislation (and institutions), to take account of long term policy, current need for clarification, IVLT and certification, other relevant legislation, EC accession and international best practice for forest law.
- Develop single set of amendments / new legislation, develop support for amendment and obtain National Assembly approval.

4.5. POLICY EFFECTIVENESS

Task 4 - A review of effectiveness of forest management policy setting process and implementation.

4.5.1. TASK BACKGROUND

International best practice requires – and practical implications determine - that major changes to policy, legislation, regulations and institutions should be made as infrequently as possible. All such changes take significant amounts of the scarce time of national assembly representatives, government staff and private sector companies and incur major costs. Frequent changes inhibit effective implementation and create unnecessary bureaucracy which particularly hinders the private sector. For those main reasons, it is commonly intended that policy should aim to look ahead for periods of say 20 to 30 years. Legislation is commonly expected to stand without significant modification for perhaps 10 to 15 years. The legislation should set the framework for implementation of the policy, should define responsibilities and roles and should enable the (governmental) institutions which have responsibility for implementing, monitoring and regulating the policy.

It is common to develop shorted term programs or actions plans, which may cover a period of 3 to 5 years and will set out in more detail what each part of government, the private sector and the non-governmental sector is going to do to implement the policy. In the forest sector, such programs or action plans are well established as international best practice, under the name of National Forest Programs.

It is reasonable to expect that a country undergoing such recent and dramatic change as BiH will have to have more frequent changes to policy, legislation, institutions and action plans than is necessary in countries whose recent history is more settled. Nevertheless, it is desirable to minimise the frequency of changes.

For the reasons set out above, t
This task in part overlaps with Task 3, in that the purpose of the legislation should be to implement the long term policy set by Government.

4.5.1.4.5.2. RESULTS

As far as the consultants could establish, t
~~There is does not appear to have been a no~~ formal long term policy for forestry in the RS ~~in the past~~. Evidence for this appears in some incompatibility of legislation with long term political aspirations, a lack of clarity about financial aspects of the sector in the relevant legislation and in an apparent lack of strategic approach to privatisation within the forestry sector.

This is a significant hindrance to effective development of the sector. However, Article 7 of the “Law on Changes and Amendments to the Law of Forests” (gazetted in August 2003) requires the National Assembly to pass a “..long term program for the RS forestry in accordance with the

development needs and international obligations.” This is most usefully interpreted as a requirement for a long term policy. However, the Law does not allocate responsibility for instigating the policy, stipulate the consultation and preparation requirements nor impose a timeframe.

~~It is reported that An a initial~~ start has been made on the development of such a policy, but this has not progressed very far. that “..it has not got very far...”. The policy development is being lead by the MAFWM and they are reported to have established a working group of suitable experts. ~~No other information is available at time of writing on who and which organisation is leading the policy development.~~

Both international best practice and the development of workable meaningful policy require that a wide cross section of stakeholders in the sector are consulted, can participate and are represented in the policy development process. Groups such as DRVO BiH, the association of sawmillers and wood processing companies, that we would expect to be playing a major role in the process do not appear to be involved, which organisations are involved, which are being consulted nor on how the views of other stakeholders are being collected.

In the absence of a formal statement of policy, some aspects of policy can be implied from the Law on Forests of 1994. From this, some principles emerge, including:

- Recognition of the wide ranging benefits of forests, including public good benefits, such as regulation of hydrology and climate, health and the protective function
- Sustainable management of forests
- Protection of forests from incursion, building, transfer, pests etc
- Special treatment of forests in karsst areas

Consideration of the effectiveness of policy implementation is not really practical at present, for a number of reasons:

- The absence of a formal, explicit statement of policy
- The fact that the turbulent events of the last 10 to 15 years make any judgement about the effectiveness of implementation of any policy very difficult.
- The absence of and inaccessibility of data. On many topics, good quality and reliable data does not appear to exist. On other topics and with some organisations, it appears that data exists but access to it has been refused.

4.5.2.4.5.3. CONCLUSIONS

There is no formal statement of (long term) forestry policy in force at present.

Development of a long term policy has started. More information is required on [the current policy preparation process which has been started, in order to make an assessment of its effectiveness needs to be supported and strengthened, opened up to wider participation and given a stronger and clearer lead.

Data existence and availability is a major constraint to policy preparation, implementation and evaluation.

4.5.3.4.5.4. PROBLEMS AND POTENTIAL SOLUTIONS

The main problems evident here - and some potential solutions to them – include the following:

- The lack of a formal long term policy for the sector has adversely affected some aspects of its development.
 - Strengthen the capacity of the MAFWM to develop and implement policy, legislation, action plans and to coordinate the sector

- Assess support for strengthening the policy development process to ensure comprehensiveness, coordination with FBiH, compatibility with political aspirations and effective stakeholder representation.
- Assist the process with experienced policy development expertise if requested.

Good quality data on many aspects of sector is hard to obtain, because either it does not exist, it is nor helpfully collated or it is not readily available.

Perhaps the single biggest problem for this assignment (including evaluation of policy implementation) is that, for many aspects of the forest sector, reliable data either does not exist, did exist but was destroyed during the war, may exist but cannot be obtained or exists but is not readily available, including to the general population.

- Review the current availability of data for the sector and the requirements for better data, across both RS and the FBiH.
- Define the purpose of, plan and implement a “Sector review” of a scope and depth to respond to the needs of all relevant stakeholders.
- Collate the data and information and disseminate widely to all who can use it.

4.6. TIMBER PRICES, SALE AND DISTRIBUTION

Task 5 - A review of RS government practices related to timber price-setting, its public sale and distribution network. This review should include set of data with quantifiers on the extent of illegal logging.

4.6.1. TASK BACKGROUND

Earlier work identified that Until earlier in 2004, the Government of the RS has sets the minimum prices for the sale of roundwood from the state forests. This price setting was is required by the Law on Forests of 1994, but subsequent amendments have changed the requirement to one which requires Government approval of minimum prices.-

The wider issue of roundwood marketing, including pricing and distribution, was assessed in 2000 by consultants engaged under the previous EC Phare funded component of the Bosnia Forestry Project. The Report on “Wood marketing and pricing” by Robert Scharpenberg, dated July 2000, includes a comprehensive assessment of the impacts of the practices in place at that time, including price setting, types of sales, taxation, the log export ban and data availability.

Anecdotal evidence suggests that “illegal logging” is common. Good data on the extent of illegal logging is hard to obtain in most countries and it is certainly not practical to gather primary data within the two weeks duration of this assignment. Some anecdotal evidence is available.

4.6.2. RESULTS

At this time (February 2004), it is still the practice for the Government to set minimum prices for roundwood sold by Srpske Sume. In practice, these minima appear to be used as the actual price for sales, with few sales being recorded at other prices. The prices set are significantly lower than in surrounding countries and than in for example Austria and Germany, especially for the better grades of timber. Prices set do not reflect the greater recovery available from larger size logs. The large number of new entrants to the sawmilling industry in BiH in recent years indicates that potential profits from sawmilling in BiH are substantially higher than in other countries.

The past level of the Government set prices is a direct and indirect cause of many difficulties in the sector. Low prices have attracted many new entrants, which has resulted in gross overcapacity in sawmilling. Overcapacity is one driver of illegal logging as companies cannot all get enough timber by legal means. Illegal logging leads to reduced revenues to Government. The pressure for sawlogs increases the supply of smaller and lower quality roundwood, for which at present there is not an adequate market, in turn driving down prices for these products.

However, the Board of Srpske Sume has issued a directive to the effect that during 2004, all FMUs have to sell at least 50% of their round timber by auction. Some FMUs have already started auctioning timber and report higher prices achieved as a result. However, the level of publicity, competition and equality of treatment for the auctions is not yet known. The capacity of Srpske Sume staff to plan, conduct and record high quality, robust auction sales is untested.

~~In practice, these minima appear to be used as the actual price for sales, with few sales being recorded at other prices. The prices set are significantly lower than in surrounding countries and than in for example Austria and Germany, especially for the better grades of timber. Prices set do not reflect the greater recovery available from larger size logs. The large number of new entrants to the sawmilling industry in BiH in recent years suggests that potential profits from sawmilling in BiH are substantially higher than in other countries.~~

Given that Srpske Sume controls over 80% of the supply of roundwood, the current pricing practice would usually be seen as incompatible with a market economy. The usual concern regarding this would be the risk that prices would be set higher than if a free market prevailed. In the case of the RS, the evidence suggests that prices may be set too low for optimum economic efficiency and social justice. In essence it appears that excess profits resulting from the pricing policy are being extracted by a small number of sawmill owners rather than retained in the form of higher sales revenue for the public benefit.

The failure to use price to reflect more clearly the underlying value of the timber resource means ~~is~~ that the sector is not yet obtaining the benefit of competition, which should derive from the transition to a market economy. If used more, price competition should result in the companies which are least efficient at adding value to the raw material being driven out of the market. However, this can only happen in a market where there is little illegal activity.

It is also important that the current pricing and sales policies and practices are almost certainly incompatible with the competition rules of the European Union, which requires its members to have “a functioning market economy”. This is an example where short term practice needs to be brought into line with long term political policy.

The majority of sales by Srpske Sume at the moment appear to be by negotiation (largely about quantity as prices are largely pre-set) rather than by tender or auction. Not only does this method contribute to the economic inefficiency but it is also most susceptible to informal illegal payments. The results of sales are not public information other than in aggregated form, which again contributes to economic inefficiency.

The stage in felling and harvesting at which timber is sold is important. It has to be suitable for the type of forest management practiced and for the nature of the timber. Other factors are terrain, availability of harvesting equipment and transport and the amount of control and supervision required and sought. Most sales are conducted “at roadside”, that is after felling and extraction of the timber to the forest roads, usually by contractors for ~~by or for~~ Srpske Sume. Roundwood

buyers are frequently responsible for loading and usually responsible for transport. Because of the type of forest management practiced, sales at roadside are likely to continue to be most suitable for some time. However, there are some practical difficulties with this which could be alleviated by better management and equipment.

One FMU transports all sawlogs to be sold to a central log yard. This not only makes it easier to control log movements in the forest, it also reduces the cost of haulage for the buyer.

There is great discussion within Srpske Sume, but little sign of clear direction, regarding the allocation of timber to sale by auction and to sales by other means, presumably negotiated sale. As noted above, Srpske Sume staff report that they have been directed to sell 50% of timber by auction and to reserve the other 50% for so-called “strategic” companies. Staff also report that their attempts to get a definition of strategic have been unsuccessful. In some contexts, such as early lists of companies suitable for privatisation, “strategic” appears to mean just big, with many employees. This just covers the large, state owned or formerly state owned, usually vertically integrated companies. However, another description of strategic was given to us which was, in effect, “export oriented, added value producers”.

There is a concern here that reserving supplies for so-called “strategic” companies is a smokescreen for reserving supplies for the old, inefficient SOEs, or for politically favoured companies.

Another concern is the prices to be used in sales which are not the subject of auctions. It is common practice to sell a proportion of timber by methods other than sealed tender or auction, which thus do not involve direct competition. However, best practice requires that such sales should contain a price setting mechanism which links the price to those achieved in sales by auction or tender.

Another factor which should be kept in mind is the advantage in being able to reserve some supply of round timber for use as guaranteed level of supply to companies making major investments in the sector. It is common practice for the state to guarantee to supply perhaps 50% of the requirements for a major investment in processing capacity, for a set period. It would also be normal for such an agreement to contain price adjustment mechanism, linked either to market prices for roundwood or to the world market price for the end product. Given the need for investment in wood processing in the RS, maintaining this ability will be important in attracting investors. Investment may be a more important criterion for the so-called “strategic” customers than other factors and could be applied evenly to both domestic and inward investors.

Earlier work found little awareness of customer orientation within Srpske Sume and very little knowledge of the importance of marketing and pricing in achieving the optimum levels of harvest and revenue. The marketing arrangements which used to exist until the early 90s, especially for export marketing, were broken down by the changes since and have not been replaced. There appears to be very little market intelligence or assistance with marketing available to wood processing companies.

In former, centrally planned, times timber was allocated from forests to wood processing companies according to a centrally determined concept of transport efficiency. In an emerging market economy, the price of timber from forests should reflect (amongst other things) the varying cost of transport to the sawmills and the competition amongst those mills. However, given the shape of the boundaries of the RS in relation to FBiH, the economic efficiency of that pricing can only be realised if there is a free market in timber across both entities. Sawmills in the RS have to be free to buy from the FBiH and vice versa. At present, such “cross entity” sales are possible in theory but in practice they happen only infrequently and then only at the initiative of individual sawmill managers. If this obstacle to economic efficiency is to be overcome, it is likely that the governments of the two entities will need to do more to stimulate cross-entity trade.

There appears to be no good data available at present on the extent of illegal logging in the RS. Estimates from credible sources vary from “..insignificant ..” to “over 40% in some areas”. Not surprisingly and for obvious reasons, illegal logging tends to be underestimated.

The expression “illegal logging” covers a variety of activities and “illegal removal of timber” is a more accurate expressions. Such illegality can cover a variety of activities, including:

- Straightforward theft of either standing or felled trees, with no involvement of forest service staff
- Theft of standing or felled trees with the connivance of forest engineers, technicians or guards (or some combination), who commonly are bribed for their silence. This can be of whole truck loads, part loads or smaller amounts.
- Sale of timber which, whilst the actual harvesting and sale may have been handled within the law, should not have been marked for felling because it represents over cutting.
- Deliberate agreement to the under-grading of logs, with forest service staff receiving bribes for their assistance in defrauding the forest service
- Misdirection of funds received by the forest service from the sale of timber, which sales may be properly recorded at forest level, commonly by senior staff, especially from payments in cash
- High level misdirection of forests service funds, from any source, in the form of so-called “white collar fraud”.

The system of control of felling in the RS requires that all trees – and the logs into which they are cut – are tagged or stamped for identification, measured and recorded at the point of felling. If that initial stage is applied in all situations, then it is possible to prevent some of the forms of “illegal removal” outlined above. However, if the first initial stage is not correctly carried out, at the right time, the rest of the system of tracking and accounting is useless. During field visits, the author observed directly several examples where that initial stage was not being carried out correctly. Other examples of inadequate management control of logging were also seen, such as trucks carrying untagged / marked logs.

The reality in the RS is probably that no-one knows the extent of illegal removals of timber.

Potential methods of quantifying the extent of illegal logging include covert observation at a local level and unannounced spot checks of log movements to a suitable sampling regime. More commonly, illegal logging (more correctly, illegal removal of timber) is estimated by comparing apparent intake of timber by roundwood using industries with reported legal sales of timber. None of these methods was practical during this assignment. However, many of the sawmill company staff interviewed for this study said that illegal / black market timber was a problem for them and for the industry.

4.6.3. CONCLUSIONS

Good information on roundwood marketing, sales and pricing ~~es~~ exists from earlier work in 2000. We think that this is likely to be still accurate, but some updating would be advisable.

The current system of roundwood pricing and sales is economically inefficient, may lead to greater exploitation of the forests than is necessary and contributes to the level of illegal removal of round wood from the forests.

The recently announced change to use of auction sales is welcome. At the moment, the capacity of Srpske Sume to develop, adopt across the organisation and maintain best practice in the conduct of robust, efficient auction sales is untested. An economically efficient market in roundwood will take considerable time to develop.

The method of sale, pricing and allocation of the 50% of timber which will not be sold by auction is still to be determined. Maintaining the ability to guarantee part of the requirements of major investors in wood processing may be important.

Independent certification of sustainable forest management and of timber products will require the ability to trace supplies of timber through the sales process and demonstrate that it has been obtained legally.

~~More No recent data on timber distribution has been found and more~~ information on the pattern of timber distribution and customers will be needed in future. ~~would be valuable.~~

There has been found to be a lack of awareness of markets, marketing, customer orientation and market driven efficiency in Srpske Sume. Market data and marketing assistance are not readily available to many wood processing companies, other than through USAID's own Cluster Competitiveness Initiative.

The extent of illegal logging and other forms of illegal removal of timber is not known but is probably significant. This not only leads to lost revenue but also to excess harvesting and it undermines the operation of the market for the law abiding companies. ~~There appears to be no data on illegal logging.~~ Making an estimate of the extent of this should be a high priority for the future.

~~The other key conclusions can be summarised in the problems.~~

4.6.4. PROBLEMS AND POTENTIAL SOLUTIONS

The main problems evident regarding timber prices, sales and distribution, and the potential solutions to the problems, include the following:

~~The Current system of roundwood pricing and sales is not suitable and is economically inefficient, may lead to greater exploitation of the forests than is necessary and contributes to the level of illegal removal of round wood from the forests.~~

~~It~~is also almost certainly incompatible with future membership of the EU.

- See above under Task 1 for potential solutions on price and sales policy and practice.
 - Review current levels of “inter-entity” sales of roundwood.
 - Assess measures needed to enhance development of a single market and support for them.
 - Plan and implement selected measures to encourage further development of inter-entity market and sales.
 - As part of long term policy development process, assess long term legislative and competition requirements in the sector for membership of EU.
 - Incorporate requirements into wider legislative amendments arising from new policy.
- Allocation of timber to different sale types and customer types remains to be determined
 - Provide advice (as the opportunity presents) to MAFWM, MEED and Srpske Sume regarding a suitable approach to definition of strategic customers
 - Within the sector coordination forum to be established, develop suitable, even handed approach to timber sales and strategic customers which is efficient, compatible with optimising competition and which maintains ability to attract investments in wood processing
- An efficient market for roundwood will take some years to develop.
 - Support development of capacity to plan, manage and record robust auction sales within Srpske Sume
 - Assist DRVO and others to develop their purchasing capability
- Lack of market awareness and marketing throughout the sector inhibits economic development
 - Working with sector coordination bodies, plan and implement a programme of awareness raising about the issue.
 - Undertake a wide ranging Training Needs Analysis across a sample of the sector.
 - Coordinate where relevant with organisations’ training policies and practices
 - Gain political and financial support for and Implement training programme

- Promote and support establishment of a “market intelligence unit” to gather, collate and distribute market data for the industry. Transfer responsibility to industry after suitable period.
- Support joint marketing (especially export) initiatives within the sector.
- Subsidise costs of and support establishment of high quality, multi-lingual marketing assistance for companies in the sector, to be provided by private sector companies approved for quality.
- Extent of illegal removal of timber is not known but probably significant.
 - Establish clearly who is responsible for monitoring illegal logging.
 - Plan, ensure resources for and implement a programme of unannounced spot checks (on a statistical sampling basis) of actual felling and sales records.
 - Publicise results widely.
 - Use results to refine programme of ensuring compliance.
 - Follow up with results of longer term assessment
 - Repeat at suitable intervals

~~There has been found to be a lack of awareness of markets, marketing, customer orientation and market driven efficiency in Srpske Sumo. Market data and marketing assistance are not readily available to many wood processing companies, other than through USAID's own Cluster Competitiveness Initiative.~~

~~The extent of illegal logging and other forms of illegal removal of timber is not known but is probably significant. This not only leads to lost revenue but also to excess harvesting and it undermines the operation of the market for the law abiding companies.~~

4.7. COMPANY STATUS, CERTIFICATION AND CONCESSIONS

Task 6 - Assess the current status of forest management and wood processing companies and recommend measures necessary to put in place a system of certification and possibility of establishment of concessions.

4.7.1. TASK BACKGROUND

Some concern has been raised about the efficiency and financial condition of companies in the forest sector in the RS.

It has been suggested that the award of concessions could be appropriate for forestry in the RS (and in the FBiH).

As the RS forest sector becomes more oriented to environmentally conscious export markets, there will be increased demand for forest management and timber removal to be certified as sustainable. There are four relevant international, independent, third party certification schemes, operated under the FSC, PEFC, CSA and ISO acronyms.

4.7.2. RESULTS

~~There is v~~Very little readily available -secondary information ~~appears to be readily available~~ on the current status of forestry and wood processing companies. Access to a report on the financial status of such companies, prepared under the previous World Bank funded project, was denied to

the consultants. ~~Some data is available to potential bidders for companies which are undergoing privatisation but time constraints did not allow this to be obtained and collated during the assignment. Constraints outlined elsewhere prevented any direct observation or data gathering by the consultants.~~

The trade associations for the sector are either relatively young or still embryonic and they do not yet gather any data on their members financial position. Limits on the time for this assignment meant that gathering and analysing primary data on the financial position of companies was not practical.

Direct observation of the operations of some harvesting and transport companies was made by the consultants. In harvesting, the majority of operations were being undertaken with old, unreliable equipment, by people with inadequate training, without using any of the personal safety equipment which is a legal requirement in other countries. Productivity of felling operations is low and small logging equipment which greatly improves productivity was not available to people felling trees.

In one example site visited, cost of harvesting was said to be around 24 to 30 KM per m3. This is around 85% of the cost of harvesting in a similar situation in Northern Europe, in spite of the fact that the cost of labour is only about 20% of that in Northern Europe.

Discussion with the Directors of two FMUs and one forest exploitation company revealed that they believe that most exploitation companies are only earning enough to pay the immediate direct costs. The companies are not thought to be earning enough to replace any capital equipment nor to produce a return on capital employed.

The annual report with some financial information of Srpske Sume was obtained and will be translated and summarised in the near future.

Deliberation on the issue of **concessions** requires first some clear and common understanding of what is meant by the term “concession”, as this term is used by different people to mean different things. The conventional meaning of a “forest concession” or a “logging concession” within the industry is a long term right to use a (usually large) area of forest, under certain conditions and terms, in return for often a mix of upfront payments, royalty (stumpage) payments and sometimes other benefits.

Within the 1994 Law of Forests, the term concession is used to mean, amongst other things, a contract to provide a certain service, such as logging or re-planting. In that context, the term is used without any apparent assumption about the scale or period of the contract.

Concessions (of the “long term right to use a forest”-type) have at best a mixed track record in other countries. Whilst some concessions have operated in the intended way, in many other situations concessions have led to over exploitation of forests, under payment of the full value of the timber and excessive environmental damage. They have also been accused of leading to increased corruption of governments.

Where there is a strong and long tradition of good, sustainable forest management, reinforced by a history of good training of forest managers and technicians, the consultants would not recommend the use of long term forest concessions. Whilst the economic theory of concessions is appealing, in practice the results achieved have not been in the best interests of the forest owners or of the sustainability of the forest management. In practice, it is harder to effectively monitor and regulate forest operations within the flexibility of a long term concession than within a short term, limited scope, contract.

Some of the requirements of **independent certification** of forests and timber use include the ability to demonstrate that:

- Forest management is economically, socially and environmentally sustainable
- The productivity – in all senses - of forests is being maintained
- The country meets all its international obligations
- Sensitive biodiversity and habitats are adequately protected
- Planned timber yield is sustainable

- Forest operations are conducted to best international practice
- All relevant law of the country are being observed
- Timber marketed as being from forest “x” was actually harvested in forest “x”

Whilst some forestry and timber activities in the RS undoubtedly conform to some of those requirements, there is significant evidence that other activities do not conform. Even where activities and management does conform, the absence of good quality data about many aspects of the sector would currently prevent that conformity being demonstrated.

4.7.3. CONCLUSIONS

More information is required to provide any assessment of the current status of forest management and wood processing companies. Sampling of their equipment, management, efficiency, quality standards, marketing, financial health and suitability for certification and or concessions would be needed.

It is desirable that the forest sector government institutions and companies in the RS develop a strategy for obtaining independent certification. This could be done within the development of a long term policy, if the appropriate parties were represented and consulted. However, it is probably unrealistic to think that independent certification could be obtained in less than some 5 years. A new approach to achieving certification has recently been developed, with “economies in transition” such as the RS in mind. This proposes a A-staged approach~~is proposed~~, under the label “Independent Verification of Legal Timber” (IVLT), in which countries aim to reach increasing standards of compliance. This concludes with achievement of certified status. Where options are needed which allow demonstration of legality but which do not require certification, easy availability of information that allows buyers and observers to establish what constitutes legality at different stages in the chain of custody are also being promoted. This approach, although not yet tested, may be suitable for the RS.

It seems unlikely that long term forest concessions are the most suitable option for the forests of the RS. However, increasing use of contracted services is already under way and can contribute to greater efficiency and cost effective management and production in the industry.

4.7.4. PROBLEMS AND POTENTIAL SOLUTIONS

- There is a lack of good data about the efficiency, profitability and thus economic sustainability of the companies in the forest management and wood processing sectors. This inhibits effective policy development and support.
 - Gather data on a sample of companies, to assess typical capability, financial viability, and potential.
 - Plan, develop and implement a program to re-connect the companies, professional staff and operatives in the industry with technology, research and productivity gains achieved in other countries.
 - Work with trade associations to support the improvement of operations, equipment, training and finances of forest exploitation companies.
- The lack of good information and data, together with other factors mean that certification of RS forests will not be practical for an estimated 5 years at least.
 - As part of policy development and sector coordination initiatives (linked to those in FBiH), assess the requirements for national standards, data, legislation, process and finance to have an appropriate certification system for RS.

- Develop a phased strategy for selecting, preparing for, implementing and achieving forest certification, including consideration of the Independent Verification of Legal Timber process.
- Obtain industry and external support for the strategy.
- Implement the strategy.
- Monitor the process and outcome, to keep it on track.

4.8. OTHER ISSUES

Some other issues which have become apparent during the assignment have not been covered under the main Tasks and are mentioned below. Activities to address these issues have been included in the project outline prepared as a separate output of this assignment.

4.8.1. FINANCE

There is reported to be a **substantial need for increased investment into the wood processing sector**. Obsolete and inefficient equipment is common and the sawmilling equipment suitable for the smaller sizes of logs now coming from the forest is not common. Milling small logs with equipment intended for large logs is at least highly inefficient, with very high waste and low recovery and can be impossible. Investment is also needed in training, management, improved quality standards and finishing and marketing. It is not yet clear how this is taken into account within the forest sector privatisation programme nor within the activities of the Regional Development Agencies.

Up to date information was not readily available on **investment in increasing the roading density** in forests, which has been noted in earlier work and was the subject of some financial assistance in the previous Bosnia Forestry Project.

Attracting investment in markets for small roundwood is especially important. The current lack of such markets is adversely affecting the efficiency, smooth operation and profitability of the whole industry. This has an implication on Srpske Sume's timber sales and allocation policy.

4.8.2. PRIVATISATION

The privatisation programme is not directly part of the scope of this assignment. However it is part of the overall picture of the sector.

Estimates of the total number of enterprises involved in the forestry and wood processing sectors in the RS range up to some 180 enterprises. Many of these are small harvesting and transport companies and have already been privatised under the voucher and coupon schemes, using the facilities for privatisation of companies with an opening balance sheet value of less than 300,000 KM.

Information provided to the consultants for this assignment by the USAID privatisation support team covers a total of 45 companies, said to be all the companies involved in the wood processing. Of these 45 companies:

- 16 have been completely sold
- 22 still have government as owner of a minority stake (less than 30%), which is to be sold by auction or on the stock exchange
- 7 are included in the list of 80 "strategic" companies, although in practice the criteria for "strategic" are not clear

Of the seven companies, 4 are affected by litigation by a previous bidder, 2 are to be considered for privatisation and 1 has been recommended for bankruptcy.

In addition to the 45 wood processing companies, a separate list shows 36 state owned harvesting and transport companies still to be privatised.

The strategy for privatisation to date of the forest sector companies is not clear. As a result, the link to appropriate marketing, technical expertise needed and bid evaluation criteria may not be apparent to those charged with supporting the transactions. Evidence from the FBiH suggests that the appropriate time to use specialist expertise may not be well understood as the preparation and marketing of companies has proceeded in the absence of sector specialist and only the actual bidding now waits for the appointment of the specialists.

In a recent review of results to date in 2003, the Directorate for Privatisation ~~FP~~ indicated disappointment with its results, mentioned that the financial results were distorted by the predominance of voucher sales (which produce no cash), and admitted that the strategic enterprises should have been sold first to strategic investors, before the public offerings for vouchers.

The fact that in the RS, seven large SOEs have still not been privatised is a major obstacle to the economic development of the sector and of companies within it.

These companies receive large direct and indirect subsidies from the state, are overstaffed and inefficient and distort the market. They absorb a significant quantity of scarce timber and, whilst they were well connected to export markets, they have now lost that advantage and they are inefficient at adding value to the timber. They are also large employers and hence attract significant political support. Their closure or serious restructuring would create significant social difficulties. However, a solution is needed to the situation of these companies.

There appears to be scope to use the current pause in privatisation to strengthen the support for the forest and wood processing sector transactions, including developing a clear strategy and marketing plan for those companies.

Another aspect of the wider privatisation process is that there are now large numbers of shareholders who are almost certainly not experienced at protecting their rights and who are not protected by the involvement of fund managers and analysts.

- Problem – restructuring of wood processing SOEs not completed
 - With Government and international supporting agencies, review the progress and process of forest sector privatisation to date.
 - Assess the requirements for completing the process.
 - Provide appropriate additional, sector specific, expertise and / or resources to speed up implementation of a high quality process.
 - Develop a time bound strategy and plan for resolving the litigation, completing the restructuring and / or privatisation of the “strategic” companies, and completing the privatisation of other companies.
 - Implement the plan.

- Protection of shareholders’ rights

The privatisation programme has recently created a new large group of shareholders. In most cases, these people have no prior experience of being shareholders. They are mostly direct shareholders, without “fund managers” acting on their behalf. Events elsewhere show that the rights of shareholders can easily be abused. “New” shareholders in RS can ill afford to have their rights abused.

 - In liaison with the relevant Government bodies and international agencies, assess the status of shareholder protection in RS.
 - Determine what changes may be needed, to legislation, education, Government institutions, the media, etc to ensure effective protection of shareholders rights.

- Develop a plan for, support and implement the changes according to the results of the review.

Protection of shareholders' rights

~~The privatisation programme has recently created a new large group of shareholders. In most cases, these people have no prior experience of being shareholders. They are mostly direct shareholders, without "fund managers" acting on their behalf. Events elsewhere show that the rights of shareholders can easily be abused. "New" shareholders in RS can ill afford to have their rights abused.~~

4.8.3. PRIVATE SECTOR REPRESENTATION & COORDINATION

Whilst the Chamber of Commerce has a role, the specialist institutions which used to provide some coordination of the sector no longer exist and no others appear to have developed. This makes it harder for the companies to instigate collective action, harder for support agencies to deal with the sector, less easy for the sector to engage with and lobby government in a transparent way and reduces the effectiveness of policy development and implementation.

Other aspects of sector coordination no longer achieved include joint marketing initiatives and representation, especially to export markets, and the gathering, collation and dissemination of market data.

4.8.4. COORDINATION WITH THE FBiH

For reasons covered in Section 2, effective coordination of the forest and wood processing sector of the RS with that in FBiH and with the BiH level government is essential for the long term business health of both entities. It is reported that people in the RS, within both Government and the private sector, feel that this coordination is not strong enough at present.

• Coordination with FBiH

- In liaison with the long term policy process, review the current arrangements for sector co-ordination: amongst companies; between companies and Government, education establishments, NGOs, etc; between relevant Government Ministries.
- Include consideration of both internal and external co-ordination.
- In conjunction with all relevant stakeholders, develop a strategy for strengthening, deepening and improving the effectiveness of forest sector coordination.
- Obtain political and financial support for the sector co-ordination strategy
- Implement the strategy
- Monitor and evaluate the results

4.8.5. COORDINATION WITH OTHER DONOR ACTIVITIES

A variety of other donors either have already been active in the sector, currently have programs relevant to the forest sector or are planning relevant activities. Coordination with all of these is important to make sure that any possible USAID involvement is complementary and does not duplicate or contradict other Government & donor activities.

Amongst the main activities are the following:

- World Bank – the current Forest Development and Conservation Project (FDCP) started in October 2003 and covers both entities. The main components include: 1) accelerating the implementation of new legal, institutional and economic frameworks; 2) Strengthening technical capacity for sustainable forest management; and 3) Promoting biodiversity and conservation.

Specific activities relevant to the RS and to this report include: tailored training to Srpske Sume; operational support and training for the Forest Inspection Service; training in improved accounting practice for Srpske Sume; training to Srpske Sume in international best practice in timber sales; Development of a GIS based Forest Management Information System; Implementation of the National Forest Inventory; Development of a National Biodiversity Strategy; and proposals for a national protected area network.

- SIDA (Swedish International Development Agency) – has funded some workshops on certification. They are planning other possible activities in job creation, certification and standards.
- GTZ (German Development Cooperation Agency) – funded the preparation of a methodology and implementation plan for the National Forest Inventory. However, this has been rejected by Bosnian specialists, who are preparing their own methodology proposal. GTZ have satellite coverage for the whole country dating from 1999 which they are prepared to make available. They also are supporting some wood processing companies, the development of alternative medicine business and work on product standards. GTZ also supported some privatisation activity in the RS including that of 6 wood processing SOEs.
- JICA (Japanese International Cooperation Agency) – are currently developing some projects within rural tourism. We have been told they are offering to fund a GIS system for the tourism sector. As there is substantial potential for forest-based tourism, this should be compatible with the proposed Forest Management Information System.
- DFID – (Department for International Development of the UK) currently provide some support to a small number of wood processing companies through their PPERP (Post Privatisation Enterprise Restructuring Project). They also awarded in late 2003 a small contract for work on privatisation.
- Italy – The Italian Government will fund Component 3 of the Forest Development and Conservation Project (led by the World Bank), on biodiversity and conservation.
- EU – The EU funded part of the Bosnian Forestry Project, which ended in early 2003. They are not thought to have any plans for further involvement in the sector. EU currently funds some privatisation activity and a program of support to the courts and judiciary, which may be an important part of law enforcement in the sector.
- MAC – Whilst not strictly a donor, the Mine Action Centre in Sarajevo has GIS based map coverage of known land mine sites throughout the country. As significant areas of forest are currently sterilised because of suspected presence of mines, it is important that data on mines is compatible with and incorporated into the proposed Forest Management Information System.
- NORAD (Norwegian Agency for Development) – funded some studies under the Bosnian Forestry Project, especially on forest management and inventory systems. Current and future activities are not yet known.

4.8.5.4.8.6. TECHNICAL ISSUES

Some more specific technical issues are important for the continued development of the private sector parts of forestry and wood processing.

The need for an update of the BiH level forest **inventory** has already been mentioned. Along with that goes the need for efficient data processing within a **Geographic Information System (GIS) system**. Access to this data for the private sector companies is very important for more efficient planning and management. Again, it is essential that the RS and FBiH adopt, as a minimum, common standards for data type, data handling and processing and preferably for GIS software. In addition to ensuring complementarity of data, this will also reduce the unit cost to users.

There appears to be a substantial need for **training** throughout the sector. Both new entrants and existing staff need to bring their skills, knowledge and expertise up to the standard needed for efficiency and effectiveness in forest management, operations, harvesting and wood processing. The use of new technology – computers, harvesting equipment and wood processing mills - creates an additional training need. Effective timber grading, management and marketing all require different skills to those in use in the past. This is a major long term requirement.

Attention to these more technical issues has been included in the outline project plan which is one of the deliverables of this assignment.

Technical issues

~~A number of more technical issues were raised in the course of this study which are of significant concern within the sector. Time prevented more detailed analysis of these. As a result, it is premature to comment on whether any action is needed, and if so, what. These issues include the following:~~

- ~~Timber grading~~
- ~~GIS standards~~
- ~~Inventory techniques~~
- ~~Training~~
- ~~The lack of a market for small diameter round wood~~
- ~~Contracting out of services~~

5. RECOMMENDATIONS

This section lists the recommendations which arise from this study fall into three main categories:

Recommendations for the next steps, –for taking forward this analysis process and the identification of potential activities.

Recommendations for USAID

Immediate recommendations for the Government of the RS

5.1. NEXT STEPS

The consultants recommend that the next steps in this process of analysis of the forest sector in BiH and the identification of possible activities should be as set out below. These steps do not have to be undertaken precisely in this sequence and can be started immediately:

i. Feedback on this Preliminary Institutional Analysis from USAID

ii. ~~Cross-checking and “ground truthing” of some aspects of this analysis, with the appropriate people / organisations in the RS. (For many aspects of this study, more information could be gathered and further study done when the consultant is allowed to enter the country.)~~

iii. ~~ii.~~ Obtaining more data and information for the those aspects where this is needed to complete problem analysis and proposed solutions. These include:

~~Results of the EC-Phare funded study on Institutional aspects of forest sector development in the RS~~

- Information on the process for development of a new long term policy for the forestry and wood processing sector
- Technical issues, including Timber grading, GIS standards, Inventory techniques, Training requirements, the contracting out of services and the lack of a market for small diameter roundwood.

iv. ~~iii.~~ Completion of the analysis for the RS, including further development of the potential solutions in terms of their time and resource requirements, importance, prioritisation, etc.

iv. Initial consideration of the combined study by USAID

v. Consideration of the combined study by the relevant Government authorities in both entities and by USAID.

vi. Refining of the proposals to take account of feedback from Government and USAID.

vii. Undertake such other analyses as USAID require for Activity planning.

viii. Development of detailed Activity Plan for USAID approval.

Looking further ahead, it would be desirable to:

v. ~~ix.~~ Undertake a comparable study for the FBiH.

vi. ~~x.~~ Combine and harmonise the study with work ongoing in the RS, i.e. to present coordinated and complementary problem analysis and potential solutions for both entities, in one document.

vii. ~~Initial consideration of the combined study by USAID~~

viii. ~~Consideration of the combined study by the relevant Government authorities in both entities and by USAID.~~

ix. ~~Refining of the proposals to take account of feedback from Government and USAID.~~

- ~~x.Undertake such other analyses as USAID require for Activity planning.~~
- ~~xi.Development of detailed Activity Plan for USAID approval.~~

~~5.2.RECOMMENDATIONS FOR USAID~~

~~It was not the purpose of this study to evaluate the achievements of the CG&BI Project, nor to undertake a full appraisal of potential opportunities for compatibility with the Strategic Plan. However, even from our limited review, it is apparent that the Project has successfully made effective relationships within the sector, recruited highly capable and motivated staff and increased further their capabilities, effectively assisted the development and implementation of some of Government's policies for the sector, supported improvements in many companies in the sector during a difficult period and built up a substantial body of knowledge and information which is highly valuable for the continued development of forestry and wood using in the RS.~~

~~The sector is one which can — and with support will — have a major impact on economic development, stability and poverty alleviation in the region.~~

~~We therefore recommend that USAID:~~

- ~~? Give positive consideration to building on the achievements to date with further support to the forestry and wood processing sector in the RS.~~
- ~~? Consider the range of both short term and longer term actions which would contribute to development of the sector.~~
- ~~? Consider rapid approval of a “bridging phase” after the current project, during which some of the shorter term activities can be implemented and which would allow time for more detailed consultation on and planning of some of the longer term actions and solutions. This approach would also help to ensure maintenance of and an effective handover of skills, information, relationships, etc.~~

~~5.3.RECOMMENDATIONS FOR THE RS GOVERNMENT~~

~~Some immediate recommendations arise from this study. These are as follows. The consultants recommend that the Government of the RS should:~~

- ~~? Impose a moratorium on the issue of new licenses for sawmills to operate, as soon as possible.~~
- ~~? Direct Srpske Sumo to take all possible steps to ensure that round timber is not being inadvertently sold to companies which are not licensed to operate as a sawmill.~~
- ~~? Make a formal request to USAID for further support to the forestry and wood processing sector.~~
- ~~? Work with USAID — and their advisers, other development agencies, etc — to develop the proposals for such further support from USAID.~~

|

|

Appendix 1 - Scope of Work for Forestry Expert

Background

The USAID Corporate Governance and Business Investment Project (CGBIP), Cluster Competitiveness Initiative has been providing technical assistance to the wood products manufacturing companies in Bosnia and Herzegovina (BiH) since January 2003. The assistance entails expert consultations on specific issues (e.g. production, management, etc.) to individual, selected companies that demonstrate potential for continued business growth (value-added products, export-oriented). Technical assistance is also being provided at the sector level through supply-chain, marketing, and workforce development initiatives. In an effort to expand the Cluster Competitiveness Initiative, the project includes in its cluster work the Ministries of the BiH Forestry and Industry.

In order to continue to provide a meaningful support to further development of BiH Forestry and wood products sector, USAID CGBIP would like to assess the status of BiH forestry policies and practices that are currently effective.

Scope of Work for the Expert on Forestry Administration Policy & Management Practices & Technical Assistance

The experts would assess the status of forestry administration and management, and compile necessary data on forest resources available in BiH, supported by relevant statistics from appropriate sources that will enable the reviews as listed below. The assessment should include:

- How to vertically integrate the supply chains efficiently with the wood processing industry;
- A review of the forest management government structure, detailing its weaknesses and recommending activities that would lead to its improvement, with an assessment of what type of structure is more efficient and effective in the upstream side of the wood processing industry?
- What legal framework may be necessary in order to have a sustainable natural forest while insuring adequate supply of inputs into the wood processing firms?
- A review of effectiveness of forest management policy setting process and implementation.
- A review of BiH government practices related to timber price-setting, its public sale and distribution network. This review should include set of data with quantifiers on the extent of illegal logging.
- Assess the current status of forest management and wood processing companies and recommend measures necessary to put in place a system of certification and possibility of establishment of concessions.

The experts should provide recommendations for each of the review above, with the types of assistance that should be provided on issues, including but not limited to, trade, certification, reduced impact logging, concession establishment and management, illegal logging.

While in Bosnia and Herzegovina, the experts should use all resources in Bosnia that would provide information relative to this task. Many of the resources available are provided as the attachments. Thus, the scope of work includes expert will be contacting these ministries and councils and making an analysis of the level of participation they have in forming the management of the Forest and wood products sectors.

The project is also interested in including, in the cluster work, the inputs from other international donor organizations (GTZ, The World Bank, EU), and NGOs, and the Regional Development Agencies which are

also an integral part of the development of the country. Thus, the scope of work also includes and analysis of the RDA and their efforts in Forestry and Wood Products Sector Development.

The scope of work includes an analysis of forestry laws for the Federation and the RS, and recommendations for its implementation. The SOW includes making an analysis of the law (and amendments proposed), and pointing out all problems and potential problems with the law relevant to implementation and effectiveness. Many questions need to be answered regarding the laws such as, which articles have been implemented, which articles have proven to be effective or not effective? If the law was to be rewritten today what articles should be changed?

|

|

Appendix 2 – Constraints for this assignment

~~During the period when this assignment was being planned, the security situation required the application of a ban on travel to BiH for individuals engaged by the US Government. This ban is still in place at time of writing. Together with some more minor difficulties, this ban had the following effects:~~

- ~~? The consultant engaged to prepare and write up this analysis was not able to travel to BiH at all and completed the work as a desk study, from the UK.~~
- ~~? The consultant did not meet either the client or the team working on data gathering in Bosnia and was not able to interview directly any of the potential players in the sector.~~
- ~~? There was no opportunity for the consultant to carry out any field checking or gain any direct impression of forest management or of companies in the sector.~~
- ~~? Preliminary gathering of the information by the client started in mid-December but the consultants' review of information, analysis and report writing did not start until later in December.~~

The author of this report has depended on translations into English of RS laws, reports and data. ~~Because of the constraints above,~~ it has not been possible to double check all queries which arise from these documents to ensure that the interpretation in English is correct.

Appendix 3 – Sources of information

CDC. Forestry Industry in BiH. Citizens Democracy Corps. USA

CIA World Fact book data on BiH

DFID Country Strategy Paper for BiH – 2000

DFID. Strategic Researchable Constraints for Participatory Forest Management. Department for International Development. London, UK.

Director of Privatization in RS. 2002. Rules for Tender Sales. Republika Srpska Official Gazette. Banja Luka.

Director of Privatization in RS. Rules for Auction and Dutch Auction. Republika Srpska Official Gazette. Banja Luka.

EC- CARDS programme – Financing proposal for BiH for 2003

EC. 2000. Multi-country Forestry Programme – Final Report. EC-Phare.

EU-ASP. May 2003. Status Report on proposed changes to RS Privatisation Legislation.

Ferlin, Frank. January 2001. Forest Legislation, Institutional Development and Policy Study – Reports on sub-studies.

Gerely, Ferenc. June 2001. Activity Report on the Mission of Privatisation Expert. EC-Phare. Technical Assistance to the Implementation of the BiH Forestry Project.

Gerely, Ferenc. June 2001. Activity Report on the Mission of Privatisation Expert. EC-Phare. Technical Assistance to the Implementation of the BiH Forestry Project.

Gerely, Ferenc. June 2001. Draft Proposal for a State Forestry Organisation of FBiH (model 5) EC-Phare. Technical Assistance to the Implementation of the BiH Forestry Project.

Guertin, Carl-Eric. September 2003. Illegal Logging and Illegal Activities in the Forestry Sector: Overview and possible Issues for the UNECE Timber Committee and FAO European Forestry Commission. Paper presented at UNECE Timber Committee Market Discussions, Geneva, Switzerland.

Hadžiabdic, Sead. December 2003. “Proposed Measures Required for Establishing Forest Certification and Concession Systems” A Report for USAID CGBIP.

Hadžiabdic, Sead. December 2003. ~~“Proposed Measures Required for Establishing Forest Certification and Concession Systems”~~ and “General Data on Forests in BiH”. ~~A RTwo~~ reports for USAID CGBIP.

Innotech Holztechnologien GmbH. November 2001. Development Study for Wood and Furniture Industry in BiH – Draft Report. GTZ. Berlin, Germany.

Institute for Statistics of the RS. “Forestry Statistics” 2003.

International Forestry Review – Volume 5 Number 3. 2003. Special Issue – Illegal Logging. Commonwealth Forestry Association.

Krahl, Lane. 1998. An Assessment of the Impacts of USAID Business Finance Project Logging and Sawmill Loans on Forest Resource in Bosnia and Herzegovina. USAID Business Finance Program. Bosnia and Herzegovina.

Law on Amendments to the Law on Privatisation of State Capital in Enterprises. 2003. Republika Srpska Official Gazette. Banja Luka.

Law on Changes and Amendments to the Law on Forests of RS. August 2003. Republika Srpska Official Gazette. Banja Luka.

Law on Forests. May 1994. Republika Srpska Official Gazette. Banja Luka.

Law on Privatization of State Capital in Enterprises of the RS. Republika Srpska Official Gazette. Banja Luka.

Norwegian Forestry Group. May 2001. Forest Management Planning Study – Final Report. World Bank Forestry Project BiH. NFG. Oslo, Norway.

Scharpenberg, R. July 2000. Draft Report on Wood Marketing and Pricing. EC-Phare “TA to the Implementation of the BiH Forestry Programme”.

Srpske Summe. May 2003. Annual Report for the Year 2002.

Srpske Summe. “1993 – 2002”. 10th Anniversary Brochure

The Economist. December 20th 2003. “Glad tidings – some hopeful news from the Balkans”. London, UK.

USAID. BiH Program Overview

USAID. Country Profile for BiH

Viitamo, Esa. 2001. Cluster Analysis and the Forest Sector – Where are we now? IIASA. Laxenburg, Austria.

Wood Products Cluster Competitiveness Initiative. November 2003. GENERAL PROSPECTS OF THE WOOD SECTOR / INDUSTRY IN BOSNIA AND HERZEGOVINA. USAID CGBIP. Sarajevo, BiH.

World Bank. March 2003. Implementation Completion Report on the BiH Forestry Project.

World Bank. May 2003. Project Appraisal Document for the proposed World Bank funded “Forest Development and Conservation Project”.

Zenica-Doboj Canton Agency for Privatization. 2003. Profile of the Enterprise “IP Krivaja” dd Zavidovice, and related documents.

Colleagues in USAID funded support to Privatisation provided data and information on the progress of privatization of wood industry and forestry companies in the RS.

~~The assignment team undertook meetings and interviews with organisations in BiH, including:~~

~~Borja Wood Processing Industry, Teslic.~~

~~Chamber of Commerce of the RS, Banja Luka~~

~~Lignosper Wood Processing Industry, Novi Grad.~~

~~Planinsko Wood Processing, Han Pijesak~~

~~DI Podgraci, G. Podgraci~~

~~DI Romanija Wood Processing, Sokolac~~

~~Srpske Sume, Sokolac~~

~~Vrbas Wood Processing and Furniture Industry, Banja Luka~~

~~Vukelic Wood Processing, Laktasi~~

Appendix 4 – Contributors and people consulted

The people and organisations consulted by the consultant and Bosnian colleagues for this assignment are as follows.

<u>Fore name</u>	<u>Family name</u>	<u>Position</u>	<u>Organisation</u>	<u>Location</u>
<u>Remza</u>	<u>Baksic</u>	<u>General Secretary</u>	<u>DRVO BiH – Association of Sawmillers & Wood Processors</u>	<u>Sarajevo</u>
<u>Stojko</u>	<u>Blagojevic</u>	<u>Assistant General Manager</u>	<u>Srpske Sume</u>	<u>Banja Luka</u>
<u>Andreas</u>	<u>Clausing</u>	<u>GTZ Representative BiH</u>	<u>GTZ</u>	<u>Sarajevo</u>
<u>Raiko</u>	<u>Dorojevic</u>	<u>Deputy Minister for Forestry Sector</u>	<u>Ministry of Agriculture, Forestry & Water Management (MAFWM)</u>	<u>Bijeljina</u>
<u>Goran</u>	<u>Dragomir</u>	<u>Director – FMU Sokolac</u>	<u>Srpske Sume</u>	<u>Sokolac</u>
<u>Ranko</u>	<u>Durdekanovic</u>	<u>General Manager</u>	<u>Lignosper Wood Processing</u>	<u>Novi Grad</u>
<u>Slobodan</u>	<u>Forcan</u>	<u>Assistant General Manager</u>	<u>Srpske Sume</u>	<u>Sokolac</u>
<u>Vesna</u>	<u>Francic</u>	<u>Operations Officer</u>	<u>World Bank</u>	<u>Sarajevo</u>
<u>Rade</u>	<u>Gabric</u>	<u>Director - FMU Gradiska</u>	<u>Srpske Sume</u>	<u>Bosanska Gradiska</u>
<u>Sead</u>	<u>Hadziabdic</u>	<u>Consultant & President</u>	<u>Association of Forest Engineers and Technicians of BiH</u>	<u>Sarajevo</u>

<u>Stanko</u>	<u>Ivastanin</u>	<u>General Secretary – Wood Processing</u>	<u>Chamber of Commerce of RS</u>	<u>?</u>
<u>Marinko</u>	<u>Jotanovic</u>	<u>Sales Manager</u>	<u>Borja Wood Processing</u>	<u>Teslic</u>
<u>Slavko</u>	<u>Jusopovic</u>	<u>Director</u>	<u>Sumausluge ad</u>	<u>Bosanska Gradiska</u>
<u>Gordana</u>	<u>Kikic-Arsenov</u>	<u>Technical Manager</u>	<u>DI Vukelic ad</u>	<u>Laktasi</u>
<u>Zeljka</u>	<u>Knezevic</u>	<u>RS Area Manager</u>	<u>PPER Project - DFID</u>	<u>Banja Luka</u>
<u>Cedo</u>	<u>Kovacevic</u>	<u>Sales Manager</u>	<u>Vrbas Wood Processing & Furniture</u>	<u>Banja Luka</u>
<u>Darinka</u>	<u>Kupresanin</u>	<u>Head, Technical Planning Team</u>	<u>Srpske Sume</u>	<u>Bosanska Gradiska</u>
<u>Mileta</u>	<u>Limic</u>	<u>Director – FMU Rogatica</u>	<u>Srpske Sume</u>	<u>Rogatica</u>
<u>Nedeljko</u>	<u>Marinkovic</u>	<u>General Manager</u>	<u>Borja Wood Processing</u>	<u>Teslic</u>
<u>Milorad</u>	<u>Marianovic</u>	<u>Director, FMU Dubica</u>	<u>Srpske Sume</u>	<u>Bosanska Dubica</u>
<u>Emir</u>	<u>Mehmedbasic</u>	<u>CTO</u>	<u>USAID</u>	<u>Sarajevo</u>
<u>Vladimir</u>	<u>Milin</u>		<u>USAID</u>	<u>Sarajevo</u>
<u>Petar</u>	<u>Milojevic</u>	<u>Principal Inspector for Forestry</u>	<u>Forest Inspection Service - MAFWM</u>	<u>Sokolac / Pale</u>
<u>Bob</u>	<u>Moore</u>	<u>Chief of Party</u>	<u>USAID – CGBI Project</u>	<u>Sarajevo</u>
<u>Helge</u>	<u>Olander</u>	<u>Assignment Manager</u>	<u>PPER Project – DFID</u>	<u>Sarajevo</u>
<u>Radomir</u>	<u>Pasic</u>	<u>General Manager</u>	<u>Planinsko Wood Processing</u>	<u>Han Pijesak</u>
<u>Rade</u>	<u>Rodic</u>	<u>Assistant Minister</u>	<u>Ministry of Economy, Energy & Development (MEED)</u>	<u>Banja Luka</u>
<u>John</u>	<u>Seong</u>	<u>Director, Economic Restructuring Office</u>	<u>USAID</u>	<u>Sarajevo</u>
<u>Barry</u>	<u>Shectman</u>	<u>President (& Consultant to USAID)</u>	<u>Shectman Marketing & Consulting Group</u>	<u>Sarajevo / Chicago</u>
<u>Lazar</u>	<u>Sinik</u>	<u>General Manager</u>	<u>DI Podgaci</u>	<u>Podgraci</u>
<u>John</u>	<u>Snyder</u>	<u>President (& Consultant to JICA)</u>	<u>Strategic Studies Inc</u>	<u>Sarajevo / Littleton</u>
<u>Matko</u>	<u>Stjepanovic</u>	<u>Senior Consultant</u>	<u>USAID – CGBI Project</u>	<u>Sarajevo</u>
<u>Zeljko</u>	<u>Stojanovic</u>	<u>Forestry PIU Director</u>	<u>PIU – World Bank – FDC Project</u>	<u>Banja Luka</u>
<u>Nedo</u>	<u>Vucic</u>	<u>General Manager</u>	<u>Vrbas Wood Processing & Furniture</u>	<u>Banja Luka</u>
<u>“Bobar”</u>	<u>Vukmanovic</u>	<u>CTO</u>	<u>USAID</u>	<u>Sarajevo</u>
<u>Svjetlana</u>	<u>Vukmirovic</u>	<u>Senior Business Consultant</u>	<u>PPER Project – DFID</u>	<u>Sarajevo</u>
<u>Petko</u>	<u>Vukojevic</u>	<u>General Manager</u>	<u>DI Romanija</u>	<u>Sokolac</u>

In addition, numerous other staff of companies and organisations visited, too many to mention by name, contributed information.